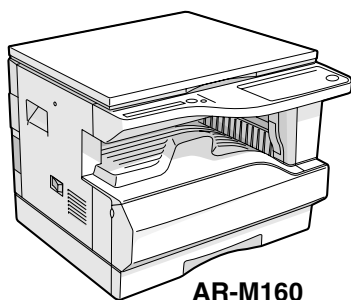
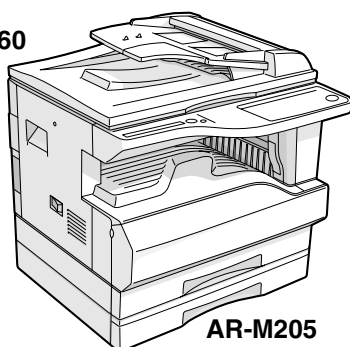


# SHARP SERVICE MANUAL

CODE : 00ZARM205/A1E



AR-M160



AR-M205


(With RSPF installed)

## DIGITAL COPIER

**MODEL**      **AR-M160**  
**AR-M205**

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Parts marked with “” are important for maintaining the safety of the set.

Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

**SHARP CORPORATION**

This document has been published to be used for  
after sales service only.  
The contents are subject to change without notice.

#### CAUTION

This product is a class 1 laser product that complies with 21CFR 1040.10 and 1040.11 of the CDRH standard and IEC825. This means that this machine does not produce hazardous laser radiation. The use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

This laser radiation is not a danger to the skin, but when an exact focusing of the laser beam is achieved on the eye's retina, there is the danger of spot damage to the retina.

The following cautions must be observed to avoid exposure of the laser beam to your eyes at the time of servicing.

- 1) When a problem in the laser optical unit has occurred, the whole optical unit must be exchanged as a unit, not as individual parts.
- 2) Do not look into the machine with the main switch turned on after removing the developer unit, toner cartridge, and drum cartridge.
- 3) Do not look into the laser beam exposure slit of the laser optical unit with the connector connected when removing and installing the optical system.
- 4) The middle frame contains the safety interlock switch.  
Do not defeat the safety interlock by inserting wedges or other items into the switch slot.

#### Warning!

This product is a class A product.

If it is operated in households, offices or similar surroundings, it can produce radio interferences at other appliances, so that the user has to take adequate countermeasures.

CLASS 1 LASER PRODUCT

LASER KLASSE 1

LUOKAN 1 LASERLAITE

KLASS 1 LASERAPPARAT

#### VAROITUS!

LAITTEEN KÄYTTÄMINEN MUULLA KUIN TÄSSÄ KÄYTTÖOHJEESSA MAINITULLA TAVALLA SAATTAA ALTISTAA KÄYTTÄJÄN TURVALLISUUSLUOKAN 1 YLITTÄVÄLLE NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE.

#### VARNING

OM APPARATEN ANVÄNDS PÅ ANNAT SÄTT ÄN I DENNA BRUKSANVISNING SPECIFICERATS, KAN ANVÄNDAREN UTSÄTTAS FÖR OSYNLIG LASERSTRÅLNING, SOM ÖVERSKRIDER GRÄNSEN FÖR LASERKLASS 1.

#### CAUTION

INVISIBLE LASER RADIATION,  
WHEN OPEN AND INTERLOCKS DEFEATED. AVOID  
EXPOSURE TO BEAM.

#### VORSICHT

UNSICHTBARE LASERSTRAHLUNG.  
WENN ABDECKUNG GEÖFFNET UND  
SICHERHEITSVERRIEGELUNG ÜBERBRÜCKT. NICHT  
DEM STRAHL AUSSETZEN.

#### VARO!

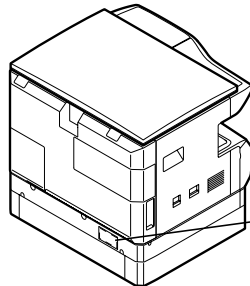
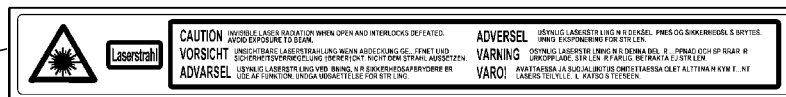
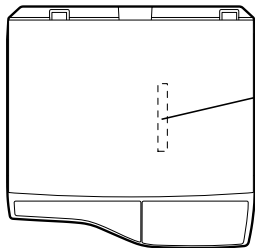
AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET  
ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE ÄLÄ  
KATSO SÄTEESEEN.

#### ADVARSEL

USYNLIG LASERSTRÅLNING VED ÅBNING, NÅR  
SIKKERHEDSBRYDERE ER UDE AF  
FUNKTION. UNDGÅ UDSÆTTELSE FOR  
STRÅLNING.

#### VARNING!

OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR  
ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRakta EJ  
STRÅLEN. – STRÅLEN ÄR FARLIG.



LASER WAVE – LENGTH : 795 ± 15 nm  
Pulse times : 0.481 ms/6 mm  
Out put power : 5 mW

Disconnect the AC cord before servicing the unit.

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# [1] GENERAL

## 1. Note for servicing

### Pictogram

The label (⚠ ⚠) in the fusing area of the machine indicates the following:

⚠ : Caution, risk of danger

⚠ : Caution, hot surface

### A. Warning for servicing

- The fusing area is hot. Exercise care in this area when removing misfed paper.
- Do not look directly at the light source. Doing so may damage your eyes.

### B. Cautions for servicing

- Do not switch the machine rapidly on and off. After turning the machine off, wait 10 to 15 seconds before turning it back on.
- Machine power must be turned off before installing any supplies.
- Place the machine on a firm, level surface.
- Do not install the machine in a humid or dusty location.
- When the machine is not used for a long time, for example, during prolonged holidays, turn the power switch off and remove the power cord from the outlet.
- When moving the machine, be sure to turn the power switch off and remove the power cord from the outlet.
- Do not cover the machine with a dust cover, cloth or plastic film while the power is on. Doing so may prevent heat dissipation, damaging the machine.
- Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous laser radiation exposure.
- The socket-outlet shall be installed near the machine and shall be easily accessible.

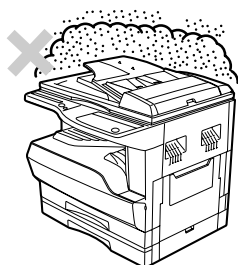
### C. Note for installation place

Improper installation may damage the machine. Please note the following during initial installation and whenever the machine is moved.

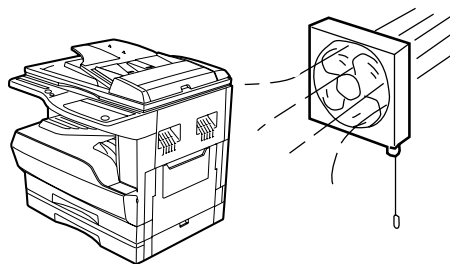
Caution : If the machine is moved from a cool place to a warm place, condensation may form inside the machine. Operation in this condition will cause poor copy quality and malfunctions. Leave the machine at room temperature for at least 2 hours before use.

#### Do not install your machine in areas that are:

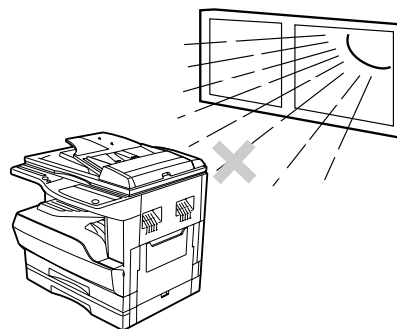
- damp, humid, or very dusty



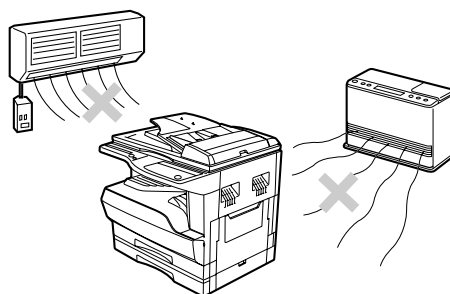
- poorly ventilated



- exposed to direct sunlight



- subject to extreme temperature or humidity changes, e.g., near an air conditioner or heater.

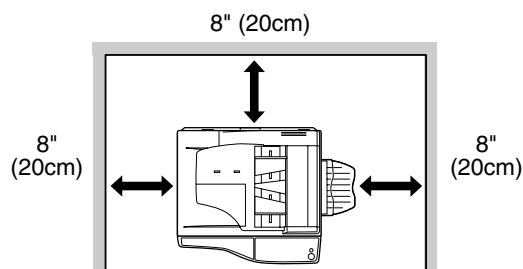


The machine should be installed near an accessible power outlet for easy connection and disconnection.

Be sure to connect the power cord only to a power outlet that meets the specified voltage and current requirements. Also make certain the outlet is properly grounded.

Note : Connect the machine to a power outlet which is not used for other electric appliances. If a lighting fixture is connected to the same outlet, the light may flicker.

Be sure to allow the required space around the machine for servicing and proper ventilation.





## [2] SPECIFICATIONS

### 1. Copy mode

#### A. Type

Type	Desk-top
Paper exit	Wing less

#### B. Machine composition

AR-M160	16-CPM multi function model
AR-M205	20-CPM multi function model

#### (1) Option

Machine	Model	
250 sheets paper feed unit	AR-D24	
250 sheets x 2 paper feed unit	AR-D25	
SPF	AR-SP6	AR-M160 only
RSPF	AR-RP6	AR-M205 only
Original cover	AR-VR5	
Dual function board	AR-EB7	
Network expansion kit	AR-NB2	Available from October
PS3 expansion kit	AR-PK1/N	option for AR-NB2
256MB optional memory	AR-SM5	

#### C. Copy speed

##### (1) Scan One Print many

AR-M205 / M160	Available
----------------	-----------

Condition: Copy speed in the normal copy from all the paper feed ports including the manual paper feed port.

##### (2) Continuous copy speed (Sheets/min)

###### a. AR-M160

Paper size		Normal	Enlargement (200%)	Reduction (50%)
AB system	A3	9	9	9
	B4	10	10	10
	A4	16	16	16
	A4R	12	12	12
	B5	16	16	16
	B5R	14	14	14
Inch system	11" X 17"	9	9	9
	8.5" X 14"	10	10	10
	8.5" X 13"	11	11	11
	8.5" X 11"	16	16	16
	8.5" X 11"R	12	12	12
	8.5" X 5.5"	16	16	16

###### b. AR-M205

Paper size		Normal	Enlargement (200%)	Reduction (50%)
AB system	A3	11	11	11
	B4	12	12	12
	A4	20	20	20
	A4R	14	14	14
	B5	20	20	20
	B5R	16	16	16
Inch system	11" X 17"	10	10	10
	8.5" X 14"	12	12	12
	8.5" X 13"	12	12	12
	8.5" X 11"	20	20	20
	8.5" X 11"R	15	15	15
	8.5" X 5.5"	20	20	20

### D. First copy time

#### (1) Basic speed

First copy time	7.2sec (A4, 8.5" X 11"/1st tray/with OC) (Polygon motor ready state)
-----------------	---

#### E. Document

Max. document size	A3, 11" X 17"
Document reference position	Left side center
Detection (Platen)	None
Detection size	A3, B4, A4, A4R, B5, B5R, A5 11" X 17", 8.5" X 14", 8.5" X 13", 8.5" X 11", 8.5" X 11"R, 8.5" X 5.5" (8.5" X 13" is detected by key input.)

#### (1) SPF/R-SPF

Standard/Option	Option SPF: AR-SP6 (AR-M160 only) RSPF: AR-RP6 (AR-M205 only)
Document load capacity	40 sheets (Thickness 4mm or less)
Document size (Max. ~ Min.)	A3 ~ A5 11" x 17" ~ 8.5" x 5.5" (8.5" x 5.5", duplex is inhibited.)
Document replacement speed	AR-M205:20 sheets/min AR-M160:16 sheets/min (A4, 8.5" x 11" normal copy)
Documentset/Paper feed direction	Face up, Center reference, Paper feed from the top
Document weight	56 ~ 90g/m <sup>2</sup> , 15 ~ 24 lbs
Document size detection	On the document feed tray
Document mixture	Copy mode: Not Available

#### F. Paper feed

Copy size (Max. ~ Min.)	A3 ~ A6 11" x 17" ~ 8.5" x 5.5"
Paper feed system	1 cassette + Multi manual paper feed
Paper feed capacity	AR-M205 250 x 2 (Paper feed tray) + 100 (Multi bypass feed tray)
	AR-M160 250 x 1 (Paper feed tray) + 100 (Multi bypass feed tray)
Remaining quantity detection	Cassette section Manual tray
	Only empty detection available Only empty detection available

#### (1) Paper feed section of the copier

Paper feed size	A3, B4, A4, A4R, B5, B5R, A5 11" x 17", 8.5" x 14", 8.5" x 13", 8.5" x 11", 8.5" x 11"R, 8.5" x 5.5" (For A5 and 8.5" x 5.5", only No. 1 tray available.)
Side front	Front
Paper feed capacity	250 sheets (56 ~ 90g/m <sup>2</sup> equivalent) (15 ~ 21 lbs.)
Detection	Paper empty detection available, size detection (by key input)
Weight	56 ~ 90g/m <sup>2</sup> (15 lbs. ~ 21 lbs.)
Special paper	Recycled paper

## (2) Manual paper feed section

Paper feed size	A3 ~ A6, 11" x 17" ~ 8.5" x 5.5"
Paper feed capacity	100 sheets(56 ~ 80g/m <sup>2</sup> )
Detection	Size detection not available, paper empty detection available
Weight	56 ~ 200g/m <sup>2</sup> (15 ~ 34 lbs.)
Special paper	Recycled paper, OHP film, labels
Paper feed	Single except for recycled paper

## (3) Option paper feed unit

	1-step paper feed unit	2-step paper feed unit
Model	AR-D24	AR-D25
Paper feed size	A3, B4, A4, A4R, B5, B5R 11" x 17", 8.5" x 14", 8.5" x 13", 8.5" x 11", 8.5" x 11"R	
Capacity (56 ~ 80g/m <sup>2</sup> )	About 250 sheets x 1 step	About 250 sheets x 2 steps
Paper weight	56 ~ 90 g/m <sup>2</sup> (15 ~ 21 lbs.)	
Moisture preserving heater	None	
Paper empty detection	Available	
Paper size setting	User setting Paper size detection:None	
External dimensions (W x D x H)	590 x 471 x 88mm	590 x 471 x 173.5mm
Weight	About 4.7kg	About 10kg
Special paper	Recycled paper	
Power	Supplied from the machine	

## G. Job speed

S-S (1st step)	100% (document replacement rate)
----------------	----------------------------------

Condition:With SPF/RSPF A4/Letter Normal 1cassette

## H. Multi copy

Max. number of multi copy	999 sheets
---------------------------	------------

## I. Warm-up time

Warm-up time	45 sec
Pre-heat	Available
Jam recovery	Within 45 sec

## J. Copy magnification ratio

Fixed magnification ratio	AB system: 50, 70, 81, 86, 100, 115, 122, 141, 200%
	Inch system: 50, 64, 77, 95, 100, 121, 129, 141, 200%
Zooming	25 ~ 400% SPF/RSPF(50 ~ 200%)
Independent zooming(vertical)	Available (25 ~ 400%) SPF/RSPF(50 ~ 200%)
Independent zooming (horizontal)	Available (25 ~ 400%) SPF/RSPF(50 ~ 200%)

## K. Print density

Density mode	Auto / Text / Photo
No. of manual adjustment	5 steps (Text / Photo)
Resolution	Writing: 600 x 600dpi Reading: 600 (main) x 600 (sub) (PHOTO mode) 600 (main) x 300 (sub) (AE mode)
Gradation	Reading: 256 gradations Writing: Binary
Toner save mode	Set by the user program

## L. Void width

Void area	Lead edge 1 ~ 4mm, rear edge 4mm or less, both sides 4mm or less
Image loss	4mm or less

## M. Auto duplex

Standard/Option	Standard provision (AR-M205 only) (D → D / D → S enable only when RSPF is installed) Not available for AR-M160
-----------------	--

## N. Paper exit / finishing

Paper exit section capacity	Face down 250 sheets
Full detection	None
Finishing	Dual function board: Option (AR-EB7)
Electronic sort capacity	A4 (8.5" x 11") standard document 100 sheets
Offset function	Available (by the shifter)
Staple function	None

## (1) Electronic sort board (Option)

Electronic sort	Sorting	100 sheets of A4 standard documents
	Grouping	100 sheets of A4 standard documents
Rotation copy	If there is paper of same size as the document, the image is rotated to copy even though the paper is set in the different direction from the document direction.	
2 in 1, 4 in 1	Copies of 2 pages or 4 pages are integrated into one surface. Divided by solid lines, (Selectable by the user program.)	
Edge erase	Images surrounding the document are erased when copying. (Adjustable in 5 ~ 20mm by the user program.)	
Center erase	The image at the center is erased when copying. (Adjustable in 5 ~ 20mm by the user program.)	
Margin shift	Binding margin is made at the left edge of the set documents. (Adjustable in 5 ~ 20mm by the user program.)	
Memory for electronic sort	16MB	
* Memory loading capacity	A4 standard 100 pages	
Memory expansion	DIMM memory slot x 1, max. 256MB x 1 slot + 16MB (Max. 272MB in total)	
USB2.0	Standard provision of E-sort	
SPLC (JBIG-GDI)	Supported when E-sort is installed.	
ROPM	Supported when E-sort is installed.	

## O. Additional functions

APS	O	
AMS	O	
Auto tray switching	O	
Memory copy	O	
Rotation copy	△	
E-sort	O	Option
Rotation sort	X	
Independent zooming	O	
1 set 2 copy	O	Enlargement invalid/SPF invalid (Patent rotation)
Binding margin	△	Default AB series: 10mm (5, 10, 15, 20mm) Inch series: 1/2 inch (1/4, 1/2, 3/4, 1 inch)
Edge erase	△	Default AB series: 10mm (5, 10, 15, 20mm) Inch series: 1/2 inch (1/4, 1/2, 3/4, 1 inch)
Center erase	△	Default AB series: 10mm (5, 10, 15, 20mm) Inch series: 1/2 inch (1/4, 1/2, 3/4, 1 inch)
Black/white reverse	X	
2in1/4in1	△	
Sorter	O	Offset function (Shifter) provided
Preheating	O	The conditions are set by the user program.
Auto shut-off	O	The conditions are set by the user program.
User programming	O	
Total counter	O	Supports Total counter, Scan counter, and Copy counter.
Coin vendor support	O	(Supports I/F only.)
Auditor support	O	(Supports I/F only.)
Duplex	O	(Standard provision for the model of 20-sheet model only)
Toner save	O	(Set according to the destination)
Department management	O	(Copy: 20 Dept.)

O : Available      △ : Installation of the option is required.  
X : Not available

## P. Other specifications

Photoconductor type	OPC (Organic Photo Conductor)
Photoconductor drum dia.	30mm
Copy lamp	Cold cathode fluorescent lamp (CCFL)
Developing system	Dry 2-component magnetic brush development
Charging system	Saw teeth charging
Transfer system	(+) DC corotron
Separation system	(-) DC corotron
Fusing system	Heat roller
Cleaning system	Contact blade

## Q. Package form

Body	Body / Accessories
------	--------------------

## R. External view

External dimensions (W x D x H)	590 x 577 x 520 mm(AR-M205) 590 x 577 x 470 mm(AR-M160)
Occupying area (W x D)	590 x 531mm (When the manual tray is installed.)
Weight	About 31.3kg (AR-M160) About 35.1kg (AR-M205)

## S. Power source

Voltage	AC120V, 220V, 230V, 240V ±15%
Frequency	50/60Hz common

## T. Power consumption

Max. power consumption	1200W
------------------------	-------

\* EnergyStar conformity

Average power consumption in operation	Less than 550W
Power consumption when standby	5W(Not include option)
Energy consumption efficiency	Less than 25W

## U. Digital performance

Resolution	Reading	600 x 600dpi (PHOTO mode) 600 x 300dpi (AE mode)
	Writing	600 x 600dpi
Gradation	Reading	256 gradations
	Writing	Binary
Memory	Simplex:16MB Duplex:32MB	
Hard disk	None	

## V. Printing function

Print speed	<Standard>12ppm (With the AR-EB7 installed) 16ppm (AR-M160) / 20ppm (AR-M205)	
Data resolution	600dpi	
Option memory	16MB (with the AR-EB7 installed) 256MB (AR-SM5) can be added to the AR-EB7.	
Printer driver	Two drivers for the case when the AR-EB7 is installed and when it is not are automatically installed by plug & play. <Standard> SHARP GDI driver <with the AR-EB7 installed> SPLC driver	

## W. Scanner function

Type	Flat bed color scanner
Scan system	Document table/document feed unit
Light source	White CCFL
Resolution	Basic 600 x 1200dpi Set range: 50 ~ 9600dpi
Document	Sheet/Book
Effective scan range	OC/SPF: about 297(length) x 431(width) mm
Scan speed	OC/SPF: 2.88msec/line (Color)
Input data	1bit or 12bit
Output data	1bit or 8bit
Scan color	Black and white binaryGray scaleFull color
Protocol	TWAIN/WIA (XP only) / STI
Interface	USB1.1 USB2.0 (Option support: High-speed mode/Full speed mode (Switched by the user program.)) (Supported when E-sort is installed)
Scanner utility	Sharp Desk/Button Manager
Drop-out color	Provided
Scanner button	Provided (6)
Supported OS	Windows98/ME/2000/XP
Void area	Lead edge/rear edge (2.5mm) on the driver side Left/right: 3.0mm
WHQL support	Yes

## [3] CONSUMABLE PARTS

### 1. Supply system table

#### A. USA/CANADA/Latin America

NO	Name	Content	Life	Product name	Remark
1	Toner cartridge(Black) <With IC>	Toner (Toner: Net Weight 537g) x10 Vinyl bag x10	160K	AR-202MT	Life setting by A4 6% document
2	Developer	Developer (Developer : Net Weight 400g) x10	500K	AR-202MD	
3	Drum kit	Drum x1 Drum fixing plate x1	50K	AR-202DR	

#### B. Middle East/Africa/Taiwan/Philippine

NO	Name	Content	Life	Product name	Remark
1	Toner cartridge(Black) <With IC>	Toner (Toner: Net Weight 537g) x10 Vinyl bag x10	160K	AR-202ET	Life setting by A4 6% document
2	Developer	Developer (Developer : Net Weight 400g) x10	500K	AR-202CD	
3	Drum kit	Drum x1 Drum fixing plate x1	50K	AR-202DR	

#### C. Europe/East Europe

NO	Name	Content	Life	Product name	Remark
1	Toner cartridge(Black) <With IC>	Toner (Toner: Net Weight 537g) x10 Vinyl bag x10	160K	AR-202LT	Life setting by A4 6% document
2	Developer	Developer (Developer : Net Weight 400g) x10	500K	AR-202LD	
3	Drum kit	Drum x1 Drum fixing plate x1	50K	AR-202DM	

#### D. Asia

NO	Name	Content	Life	Product name	Remark
1	Toner cartridge(Black) <With IC>	Toner (Toner: Net Weight 537g) x10 Vinyl bag x10	160K	AR-202CT	Life setting by A4 6% document
2	Developer	Developer (Developer : Net Weight 400g) x10	500K	AR-202CD	
3	Drum kit	Drum x1 Drum fixing plate x1	50K	AR-202DR	

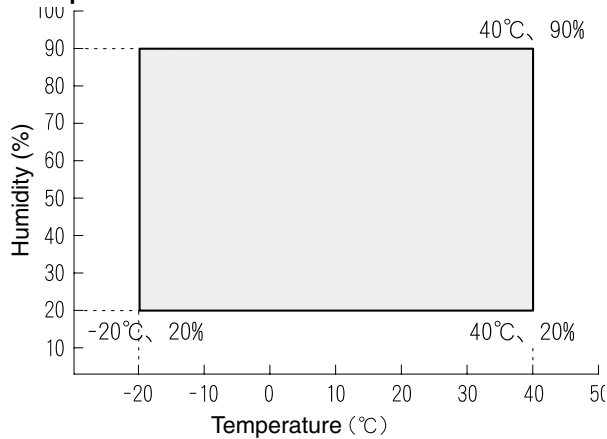
#### E. Hong Kong/China

NO	Name	Content	Life	Product name	Remark
1	Toner cartridge(Black) <With IC> (Hong Kong only)	Toner (Toner: Net Weight 645g) x10 Vinyl bag x10	160K	AR-202CT-C	Life setting by A4 6% document
2	Toner cartridge(Black) <With IC> (China only)	Toner (Toner: Net Weight 645g) x1 Vinyl bag x1	19K	AR-203ST-C	Life setting by A4 6% document
3	Developer	Developer (Developer : Net Weight 4500) x10	500K	AR-202CD-C	
4	Drum kit	Drum x1 Drum fixing plate x1	50K	AR-202DR-C	

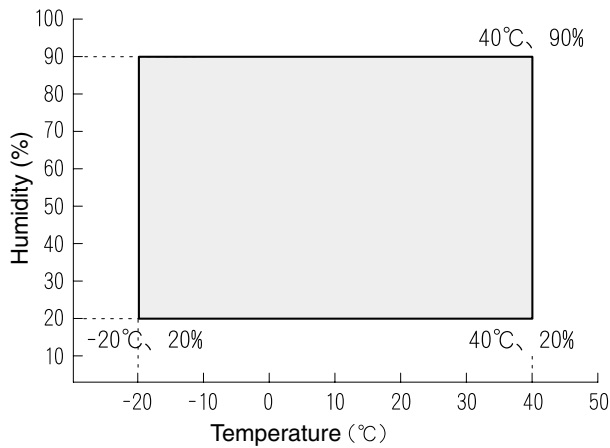
2. Environmental conditions

A. Transport conditions

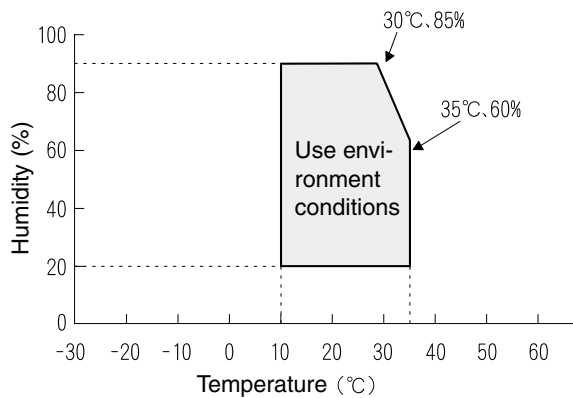
(1) Transport conditions



(2) Storage conditions



B. Use conditions



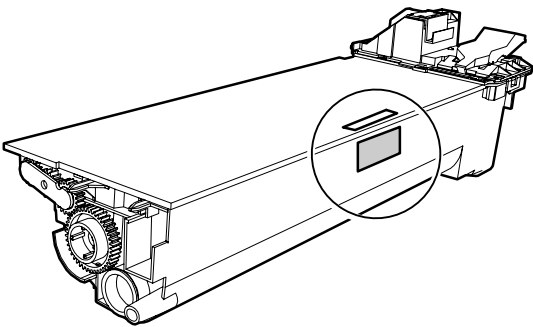
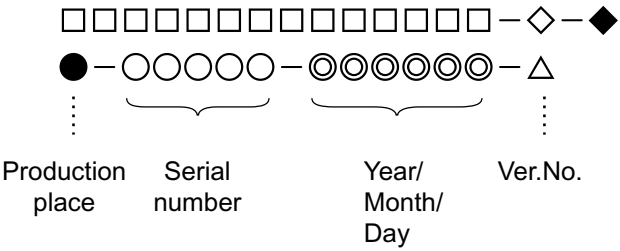
C. Life(packed conditions)

Photoconductor drum (36 months from the production month)  
Developer, toner (24 months from the production month)

3. Production number identification

<Toner cartridge>

The label on the toner cartridge shows the date of production.

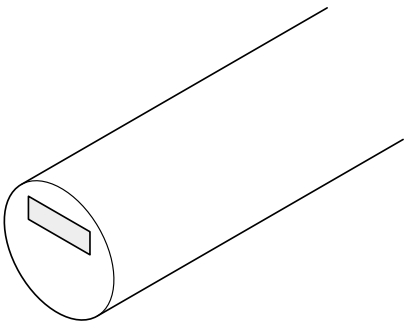


<Drum cartridge>

The lot number, printed on the front side flange, is composed of 6 digits, each digit showing the following content:

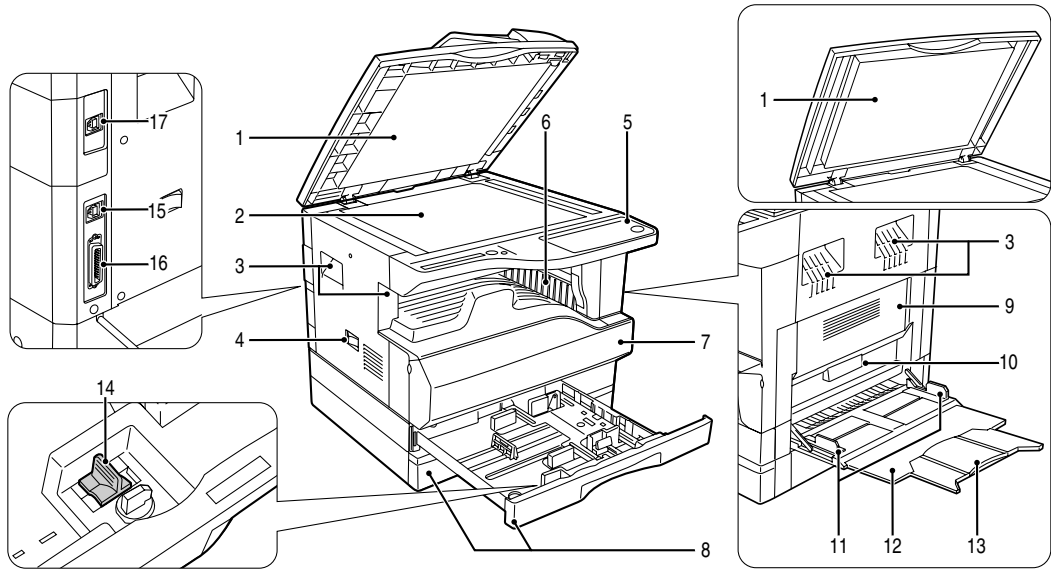
1	2	3	4	5	6
---	---	---	---	---	---

- 1 Alphabet  
Indicates the model conformity code. A for this model.
- 2 Number  
Indicates the end digit of the production year.
- 3 Number or X, Y, Z  
Indicates the month of packing.  
X stands for October, Y November, and Z December.
- 4/5 Number  
Indicates the day of the month of packing.
- 6 Alphabet  
Indicates the production factory. "A" for Nara Plant, "C" for SOCC



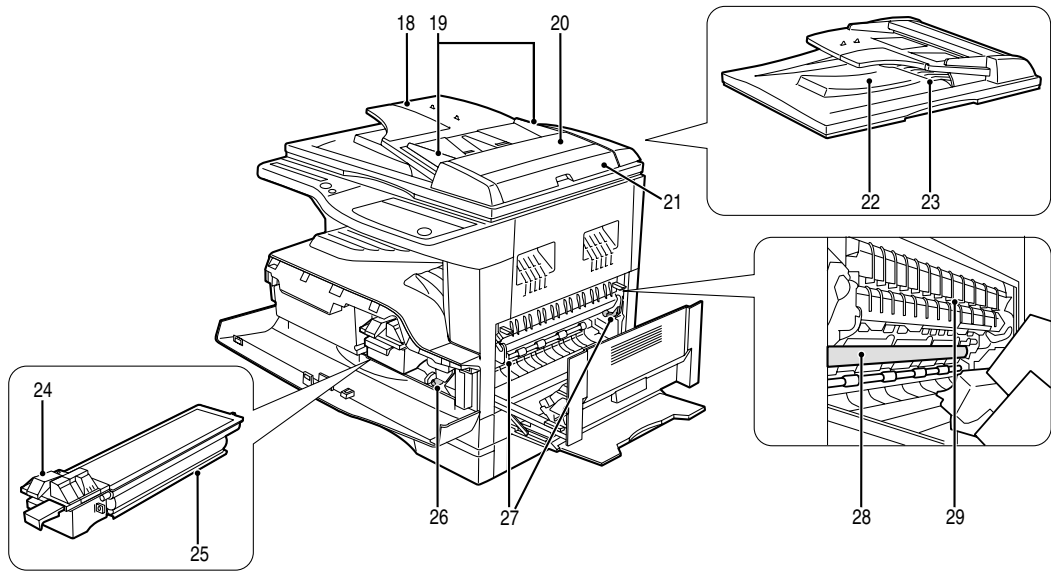
[4] EXTERNAL VIEWS AND INTERNAL STRUCTURES

1. Appearance



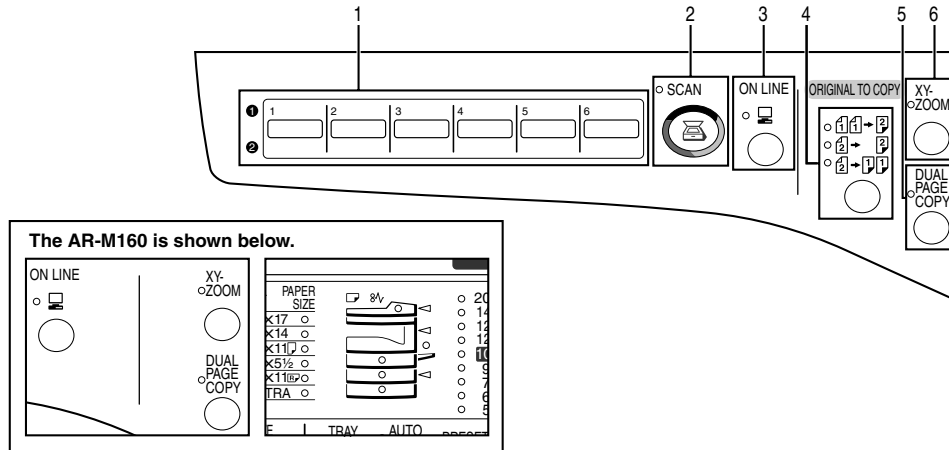
1	Document feeder cover (when the SPF/ RSPF is installed) /document cover (when the document cover is installed)	2	Document glass	3	Handles
4	Power switch	5	Operation panel	6	Paper output tray
7	Front cover	8	Paper trays	9	Side cover
10	Side cover handle	11	Bypass tray guides	12	Bypass tray
13	Bypass tray extension	14	Charger cleaner	15	USB 1.1 port
16	Parallel port	17	USB 2.0 port (when the dual function board is installed)		

2. Internal

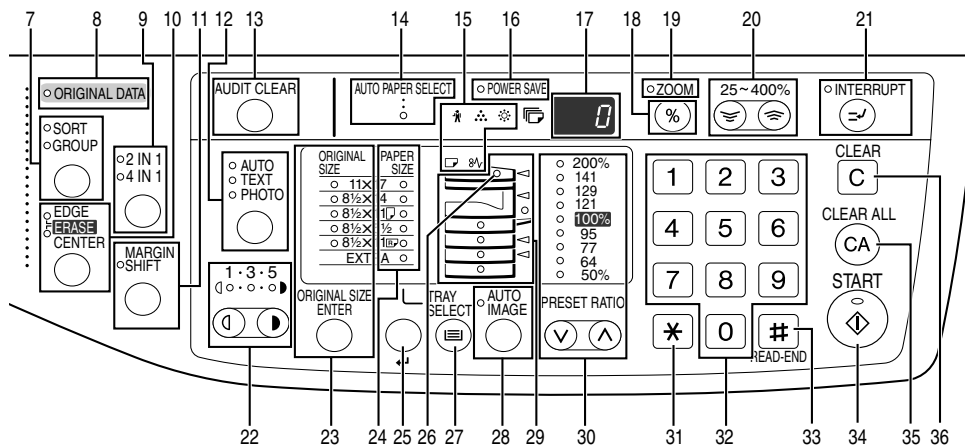


18	Document feeder tray (when the SPF/RSPF is installed)	19	Original guides (when the SPF/RSPF is installed)	20	Feeding roller cover (when the SPF/RSPF is installed)
21	Right side cover (when the SPF/RSPF is installed)	22	Exit area (when the SPF/RSPF is installed)	23	Reversing tray (when the RSPF is installed)
24	Toner cartridge lock release lever	25	Toner cartridge	26	Roller rotating knob
27	Fusing unit release levers	28	Photoconductive drum	29	Fusing unit paper guide

### 3. Operation Section

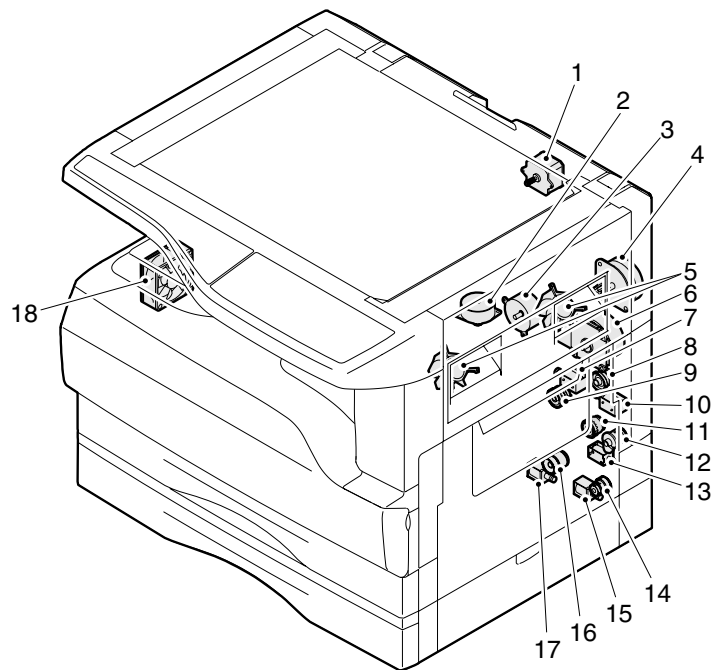


1	SCAN MENU key	2	SCAN key/indicator	3	ON LINE key/indicator
4	ORIGINAL TO COPY key/indicators (AR-M205 only)	5	DUAL PAGE COPY key/indicator	6	XY-ZOOM key/indicator



7	SORT/GROUP key/indicators (when the dual function board is installed)	8	ORIGINAL DATA indicator (when the dual function board is installed)	9	2 IN 1 / 4 IN 1 key/indicators (when the dual function board is installed)
10	ERASE key/indicators (when the dual function board is installed)	11	MARGIN SHIFT key/indicator (when the dual function board is installed)	12	AUTO/TEXT/PHOTO key / indicators
13	AUDIT CLEAR key	14	AUTO PAPER SELECT indicator	15	Alarm indicators
16	POWER SAVE indicator	17	Display	18	Copy ratio display key (%)
19	ZOOM indicator	20	Zoom keys (25~400%)	21	INTERRUPT key (⏏) / indicator
22	Light and Dark keys (☐, ◐) / indicators	23	ORIGINAL SIZE ENTER key / ORIGINAL SIZE indicators	24	PAPER SIZE indicators
25	PAPER SIZE ENTER key	26	SPR/RSPF indicator (when the SPF/RSPF is installed)	27	TRAY SELECT key (☐)
28	AUTO IMAGE key/indicator	29	Paper feed location/misfeed location indicators	30	PRESET RATIO selector keys (⏴, ⏵) / indicators
31	[[*]] key	32	Numeric keys	33	READ-END key ([#])
34	START key (⏴) /indicators	35	CLEAR ALL key (CA)	36	CLEAR key (C)

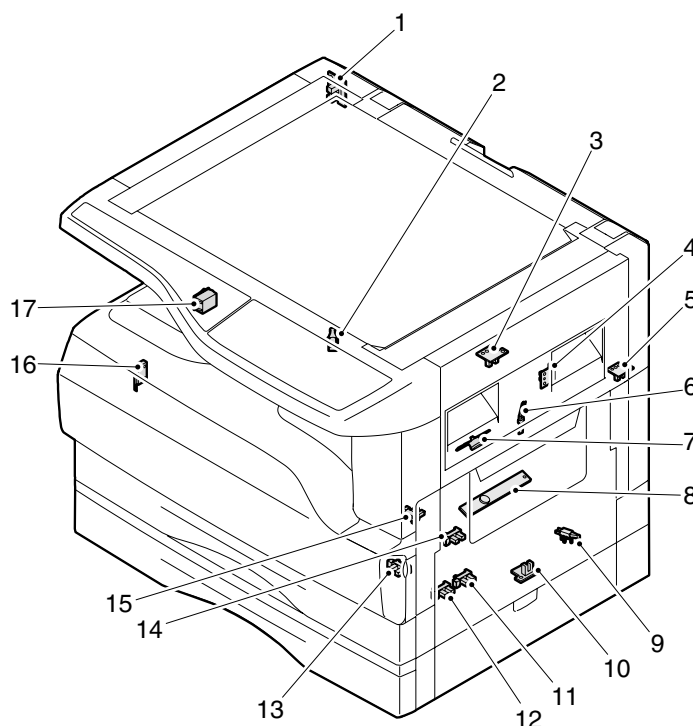
#### 4. Motor, solenoid, clutch



No.	Name	Code	Function operation
1	Mirror motor	MRM	Drives the optical mirror base (scanner unit).
2	Shifter motor	SHTM	Shifts the paper exit tray.
3	Toner motor	TM	Toner supply
4	Duplex motor	DPX	Switchback operation and paper exit motor in duplex.
5	Cooling fan motor	CFM	Cools the inside of the machine.
6	Main motor	MM	Drives the machine.
7	1st tray paper feed clutch	CPFC1	Drive the pick up roller
8	PS clutch	RRC	Drives the resist roller
9	Paper feed solenoid	CPSOL1	Solenoid for paper feed from cassette
10	Resist roller solenoid	RRS	Resist roller rotation control solenoid
11	Manual paper transport clutch	MPTC	Drives the manual paper transport roller.
12	Manual paper feed clutch	MPFC	Drives the manual paper feed roller.
13	Manual paper feed solenoid	MPFS	Manual paper feed solenoid
14	2nd tray transport clutch	CPFC2	Drives the 2nd tray transport roller.
15	2nd tray transport solenoid	FSOL1	2nd tray transport solenoid
16	2nd tray paper feed clutch	CPFC1	Drives the 2nd tray paper feed roller.
17	2nd tray paper feed solenoid	PSOL2	2nd tray transport solenoid
18	Exhaust fan motor	VFM	Cools the inside of the machine.

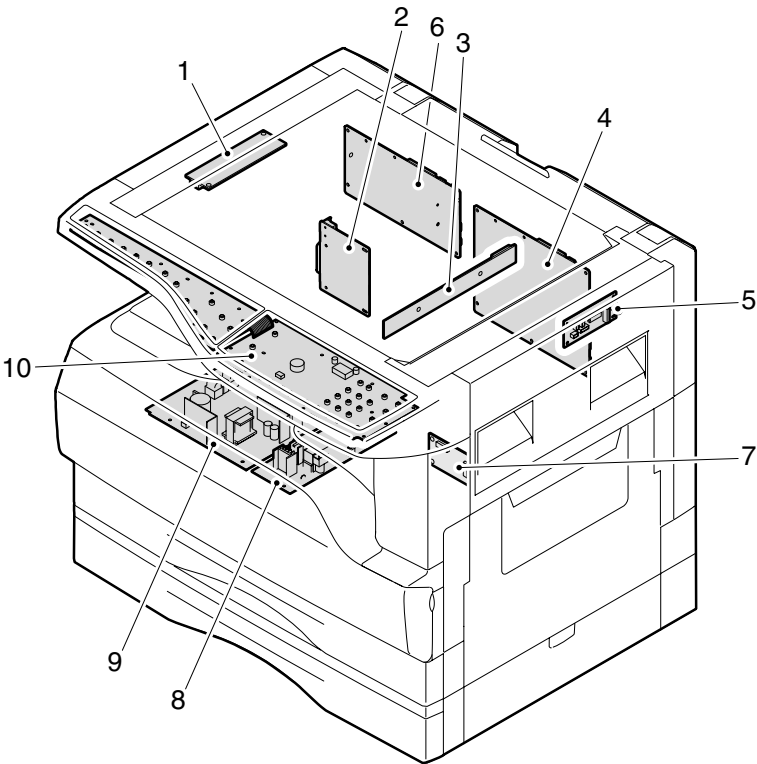


## 5. Sensor, switch



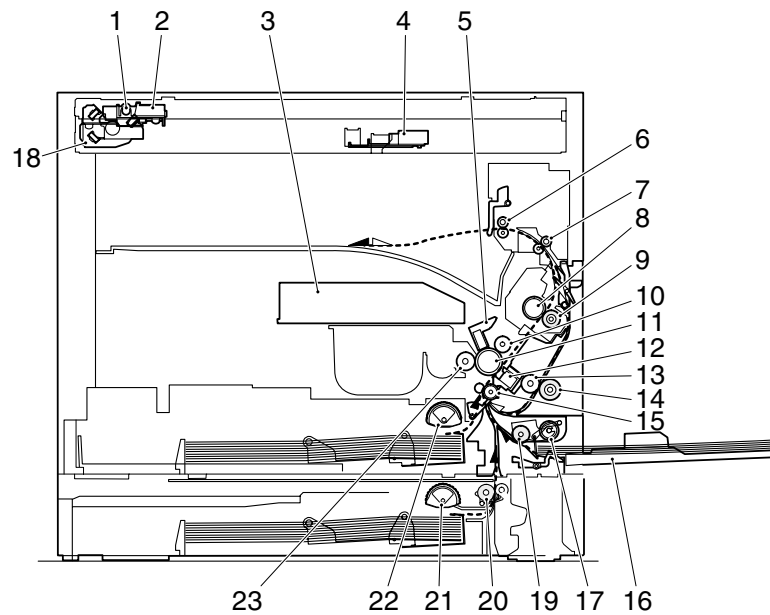
No.	Name	Code	Function operation
1	Mirror home position sensor	MHPS	Detects the mirror (scanner unit) home position.
2	Side door switch	DSWR	Side door open detection
3	Paper exit sensor (paper exit side)	POD1	Detects paper exit.
4	Shifter home position sensor	SFTHP	Shifter home position detection
5	Paper exit sensor (DUP side)	PDPX	Paper transport detection
6	Thermistor	RTH	Fusing section temperature detection
7	Thermostat		Fusing section abnormally high temperature detection
8	Toner density sensor	TCS	Toner quantity detection
9	2nd tray detection switch		2nd tray detection
10	Manual sensor	MPED	Manual transport detection
11	2nd tray door open/close sensor	DRS2	2nd tray door open/close detection
12	2nd tray door paper pass sensor	PPD2	2nd tray paper entry detection
13	2nd tray paper empty sensor	CSS2	2nd tray paper empty detection
14	Paper in sensor	PIN	Paper transport detection
15	Cassette empty		Tray paper entry detection
16	Front cover SW		Front cover open detection
17	Power switch	MAIN SW	Turns ON/OFF the main power source.

6. PWB unit



No.	Name	Function operation
1	Copy lamp Inverter PWB	Copy lamp control
2	I / F PWB	USB1.1, IEEE1284 I/F
3	CCD sensor PWB	Image scanning
4	Main control PWB	Main control PWB
5	Tray PWB	Shifter motor control
6	IMC2 PWB	Electronic sort, USB2.0 << Option:AR-EB7>>
7	2nd cassette PWB	2nd cassette control
8	High voltage PWB	High voltage control
9	Power PWB	AC power input/DC power control
10	Operation main PWB	Operation panel input/Display, operation panel section control

## 7. Cross sectional view



No.	Name	Function/Operation
1	Copy lamp	Image radiation lamp
2	Copy lamp unit	Operates in synchronization with No. 2/3 mirror unit to radiate documents sequentially.
3	LSU unit	Converts image signals into laser beams to write on the drum.
4	Lens unit	Reads images with the lens and the CCD.
5	MC holder unit	Supplies negative charges evenly on the drum.
6	Paper exit roller	Used to discharge paper.
7	Transport roller	Used to transport paper.
8	Upper heat roller	Fuses toner on paper (with the teflon roller).
9	Lower heat roller	Fuses toner on paper (with the silicon rubber roller).
10	Waste toner transport roller	Transports waste toner to the waste toner box.
11	Drum unit	Forms images.
12	Transfer charger unit	Transfer images (on the drum) onto paper.
13	DUP follower roller	
14	Duplex transport roller	Transports paper for duplex .
15	Resist roller	Takes synchronization between the paper lead edge and the image lead edge.
16	Manual paper feed tray	Manual paper feed tray
17	Manual paper pick up roller	Picks up paper in manual paper feed.
18	No. 2/3 mirror unit	Reflects the images from the copy lamp unit to the lens unit.
19	Manual transport roller	Transports paper from the manual paper feed port.
20	2nd tray paper transport roller	Transports paper from the 2nd tray.
21	2nd tray paper pick up roller (semi-circular roller)	Picks up paper from the 2nd tray.
22	1st tray paper feed roller (semi-circular roller)	Picks up paper from the 1st tray.
23	MG roller	Puts toner on the OPC drum.

## [5]UNPACKING AND INSTALLATION

### 1.Installing conditions

#### A.Copier installation

Do not install your copier in areas that are:

- damp, humid, or very dusty
- exposed to direct sunlight
- poorly ventilated
- subject to extreme temperature or humidity changes, e.g., near an air conditioner or heater.
- Be sure to allow the required space around the machine for servicing and proper ventilation.

#### B.Power source

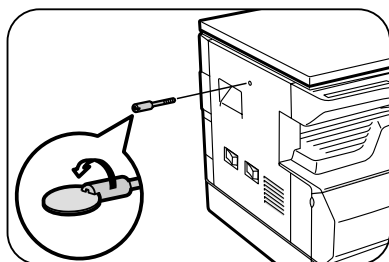
- Use an exclusive-use power outlet. If the power plug of this machine is inserted into a power outlet commonly used with other illumination units, flickers of the lamp may be result. Use a power outlet which is not used commonly with any illumination units.
- Avoid complex wiring.

#### C.Grounding wire connection.

- To avoid danger, be sure to connect a grounding wire. If no grounding wire is connected and a leakage occurs, a fire or an electric shock may be result.

### 2.Removal of protective material and fixing screw

- 1) Remove all tapes and protective material.
  - Remove all tapes, then open the document cover and remove the protective material of sheet shape
- 2) Remove the fixing screw.
  - Use a coin to remove the fixing screw.
  - The fixing screw is required when transporting the machine. Keep it in the tray. (Refer to the later description.)

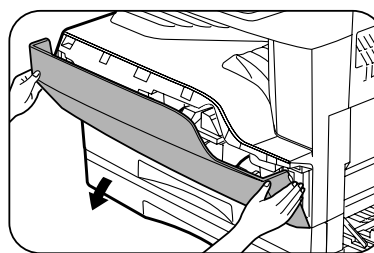


### 3.Installing procedure

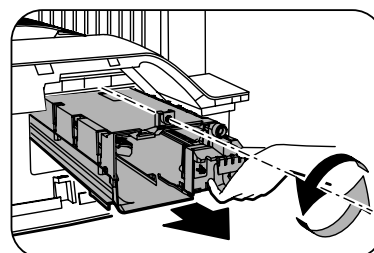
#### A.Developer cartridge installation

- 1) Open the manual tray, and open the side cover.

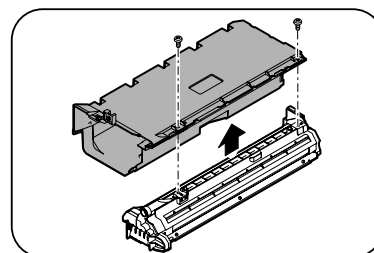
- 2) Open the front cover.
  - Hold the both sides and pull down to open.



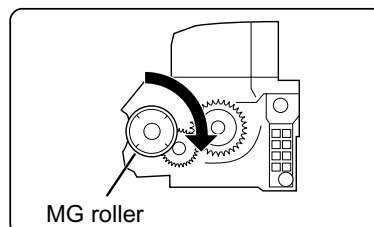
- 3) Loosen the screw and remove the developer cartridge.



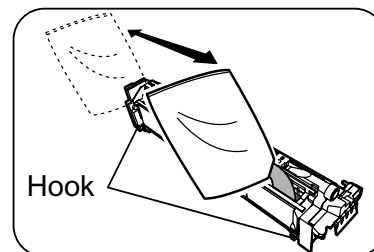
- 4) Remove the developer tank from the developer cartridge.



- 5) Supply developer into the developer tank while rotating the MG roller in the arrow direction.



- \* Shake the developer bag enough before opening it.

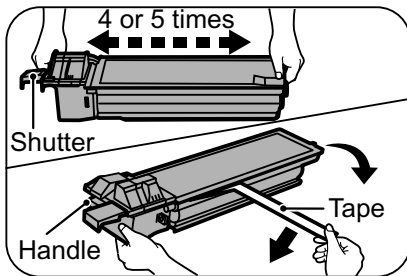


Note: Check that the DV seal is free from developing agent. If developing agent is attached to the DV seal, clean it carefully.  
Check to insure that the hook is engaged in two positions.

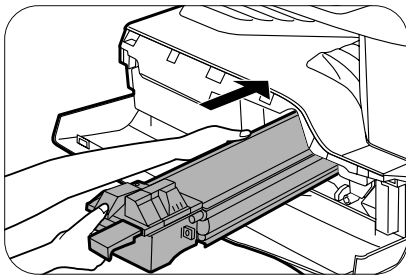
- 6) Attach the developer tank to the developer cartridge.
  - \* After supplying developer into the developer cartridge, do not tilt or shake the developer cartridge.
- 7) Attach the developer cartridge to the copier, and fix it with the screw.

## B. Toner cartridge installation

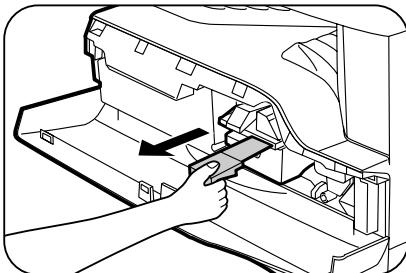
- 1) Shake the toner cartridge several times horizontally, and remove the tape.
  - \* Do not hold the shutter lever when shaking.
  - \* After removing the tape, do not tilt or shake the toner cartridge.



- 2) Attach the toner cartridge to the copier.

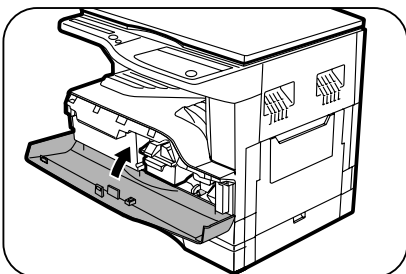


- 3) Pull the shutter lever.



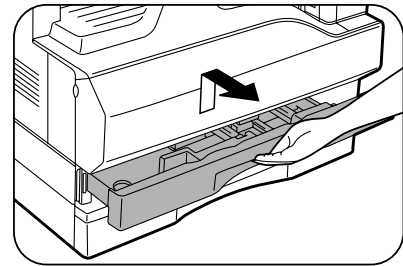
Close the front cover A, then close the side cover B.

- When closing the front cover, gently press the both sides.
- When closing the side cover, hold the knob.
- When closing the covers, be sure to close the front cover first, then close the side cover. If closed in a wrong sequence, the covers may be broken.

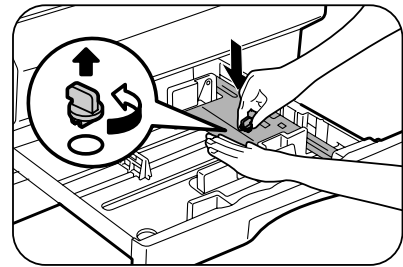


## 4. Removal and storage of fixing screw

- 1) Lift the knob and gently pull out the tray.

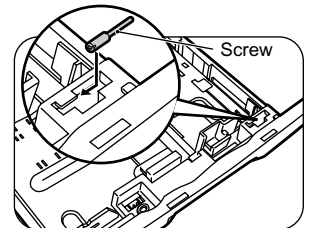
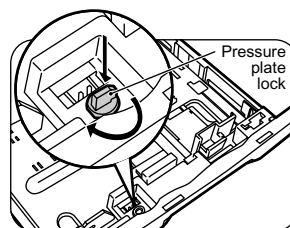


- 2) Hold the paper pressure plate and turn the fixing screw in the arrow direction.



- 3) Store the fixing pin and the fixing screw in the tray.

- Store the fixing screw which was removed in the above procedure 2 and the fixing screw which was removed in procedure 2 of 2.
- Removal of protective material and fixing screw in the storage place in the tray.



## 5. Changing the copy paper size in the tray

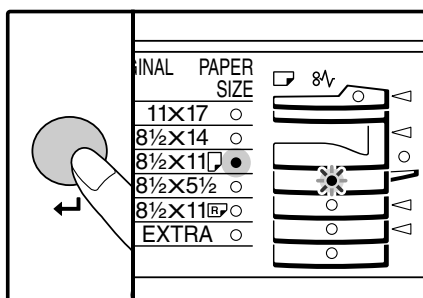
### Note

- The paper size setting cannot be changed when the machine has stopped temporarily due to running out of paper or a misfeed, or during interrupt copying.
- During printing (even in copy mode), the paper size setting cannot be changed.
- 5-1/2" x 8-1/2" size paper can only be selected in upper paper tray.
- Do not load paper that is a different size than the paper size setting. Copying will not be possible.

- 1) Hold down the [PAPER SIZE ENTER] key for more than 5 seconds to set the selected paper size.

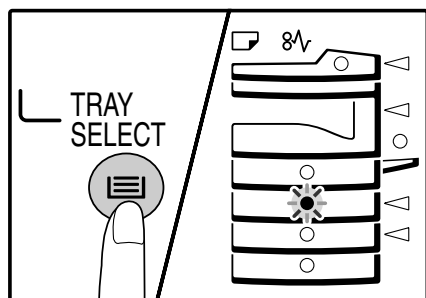
The currently selected paper feed location indicator will blink and the corresponding paper size (which is currently set) indicator will light steadily.

All other indicators will go out.



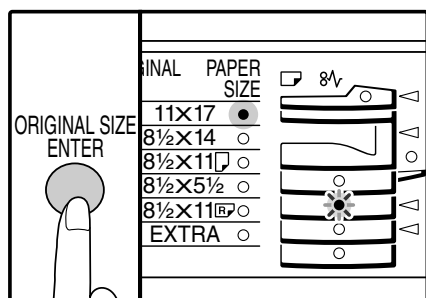
- 2) Use the [TRAY SELECT] key to select the paper tray for which you wish to change the paper size setting.

Each time the [TRAY SELECT] key is pressed, a paper tray will be indicated with a blinking paper feed location indicator.

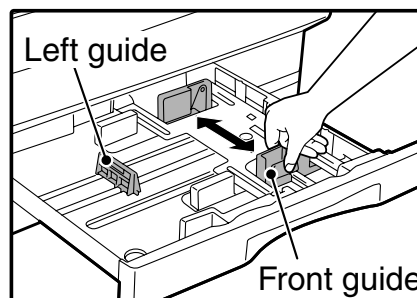


- 3) Use the [ORIGINAL SIZE ENTER] key to select the paper size.

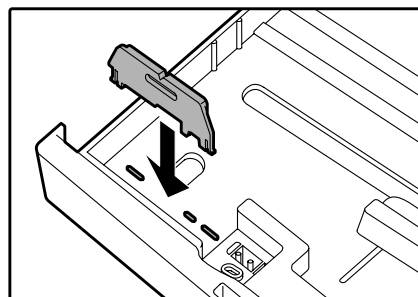
The indicator of the selected paper size lights up.



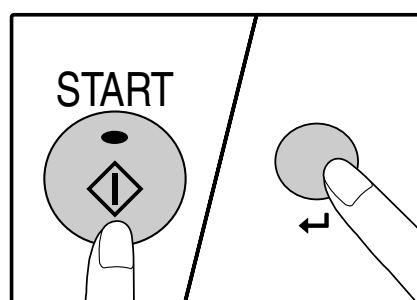
- 4) Squeeze the lock lever of the front guide and slide the front guide to match the width of the paper, and move the left guide to the appropriate slot as marked on the tray.



- The front guide is a slide-type guide. Grasp the locking knob on the guide and slide the guide to the indicator line of the paper to be loaded.
- The left guide is an insert-type guide. Remove it and then insert it at the indicator line of the paper to be loaded.
- When using 11" x 17" sized paper store the left guide in the slot at the left front of the paper tray.



- 6) Press the [START] key and then the [PAPER SIZE ENTER] key. To change the paper size setting of another tray, repeat steps 2 to 3 after pressing the [START] key.



### Note

Affix the paper size label for the paper size selected in step 3 to the label position on the right end of the tray.

## [6]ADJUSTMENTS

### 1.Adjustment item list

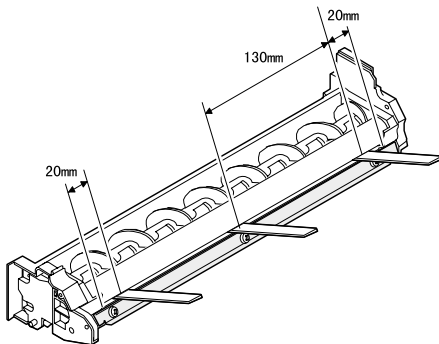
Section		Adjustment item		Adjustment procedure/SIM No.
A	Process section	(1)	Developing doctor gap adjustment	Developing doctor gap adjustment
		(2)	MG roller main pole position adjustment	MG roller main pole position adjustment
		(3)	Developing bias voltage check	
		(4)	Main charger voltage check	
B	Mechanism section	(1)	Image position adjustment	SIM-50
		(2)	Main scanning direction (FR direction) distortion balance adjustment	No. 2/3 mirror base unit installing position adjustment Copy lamp unit installing position adjustment
		(3)	Main scanning direction (FR direction) distortion adjustment	Rail height adjustment
		(4)	Sub scanning direction (scanning direction) distortion adjustment	Winding pulley position adjustment
		(5)	Main scanning direction (FR direction) magnification ratio adjustment	SIM 48-1
		(6)	Sub scanning direction (scanning direction) magnification ratio adjustment	OC mode in copying (SIM 48-1) SPF mode in copying (SIM 48-5)
		(7)	Off center adjustment	OC mode (SIM 50-12) SPF mode (SIM 50-12)
		(8)	SPF white correction pixel position adjustment (required in an SPF model when replacing the lens unit)	SIM63-7
C	Image density adjustment	(1)	Copy mode	SIM 46-1

## 2.Copier adjustment

### A.Process section

#### (1) Developing doctor gap adjustment

- 1) Loosen the developing doctor fixing screw A.
- 2) Insert a thickness gauge of 1.5mm to the three positions at 20mm and 130mm from the both ends of the developing doctor as shown.



- 3) Push the developing doctor in the arrow direction, and tighten the developing doctor fixing screw. (Perform the same procedure for the front and the rear frames.)
  - 4) Check the clearance of the doctor fixing screw. If it is within the specified range, then fix the doctor fixing screw with screw lock.
- \* When inserting a thickness gauge, be careful not to scratch the developing doctor and the MG roller.

#### <Adjustment specification>

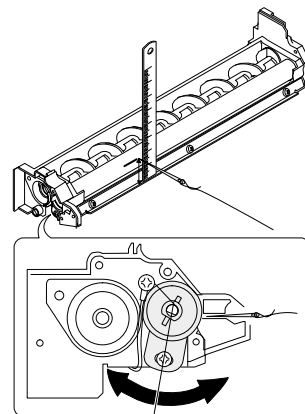
Developing doctor gap

Both ends (20mm from the both ends) :  $1.5^{+0.1}_{-0.15}$  mm

C (Center) (150mm from the both ends) :  $1.55^{+0.15}_{-0.2}$  mm

#### (2) MG roller main pole position adjustment

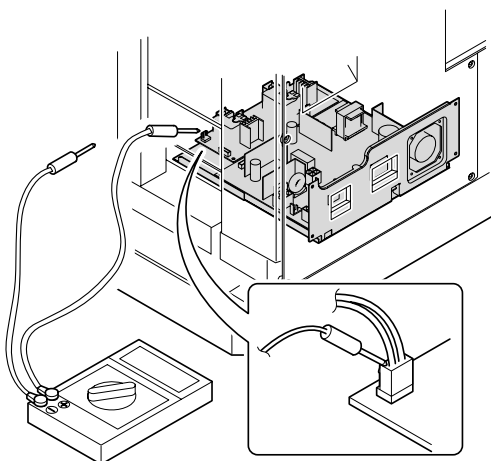
- 1) Remove and separate the waste toner box and put the developing unit on a flat surface.
- 2) Tie a string to a needle or a pin.
- 3) Hold the string and bring the needle close to the MG roller horizontally. (Do not use paper clip, which is too heavy to make a correct adjustment.) (Put the developing unit horizontally for this adjustment.)
- 4) Do not bring the needle into contact with the MG roller, but bring it to a position 2 or 3mm apart from the MG roller. Mark the point on the MG roller which is on the extension line from the needle tip.
- 5) Measure the distance from the marking position to the top of the doctor plate of the developing unit to insure that it is 18mm. If the distance is not within the specified range, loosen the fixing screw A of the main pole adjustment plate, and move the adjustment plate in the arrow direction to adjust.



### (3)Developing bias voltage check

Note:Use a digital multi-meter with an internal resistance of 10MΩ or more.

- 1) Set the digital multi-meter range to DC700V.
- 2) Put the test rod of the digital multi-meter on the developing bias voltage output check pin.
- 3) Turn on the power, execute SIM25-1.



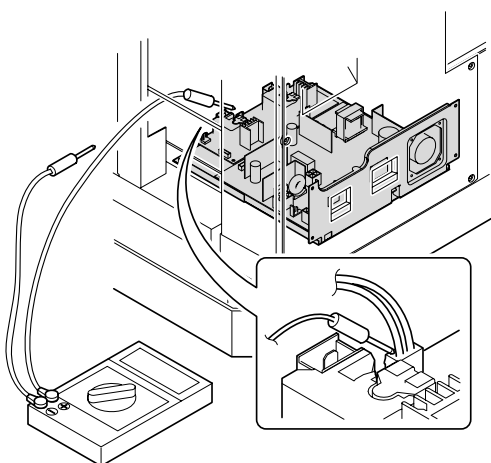
#### <Specification>

Mode	Specification
Developing bias voltage	DC - 400±8V

### (4) Grid bias voltage check

Note:Use a digital multi-meter with an internal resistance of 10MΩ or more.

- 1) Set the digital multi-meter range to DC700V.
- 2) Put the test rod of the digital multi-meter on the grid bias voltage output check pin.
- 3) Turn on the power.  
(The voltage is outputted in the grid bias High output mode during warming up, and in the grid bias Low output mode when warming up is completed.)



#### <Specification>

Mode	Specification
Grid bias LOW	DC - 400±8V
Grid bias HIGH	DC - 525±10V

## B.Mechanism section

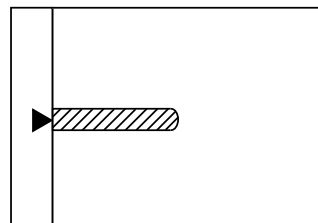
Note: If a jam error or paper empty occurs during copying in the adjustment by the simulation, the image data are not saved, and therefore recopying is required.

### (1)Image position adjustment

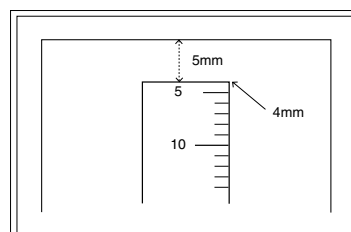
#### a.OC image lead edge position adjustment (SIM 50-1)

Note:In advance to this adjustment, the sub scanning magnification ratio adjustment must be performed.

- 1) Set a scale on the OC table as shown below.



- 2) Make a copy.
- 3) Check the copy output. If necessary, perform the following adjustment procedures.
- 4) Execute SIM 50-1.
- 5) Set the OC lead edge position set value (Exposure display <<PHOTO>> ON) to [1]  
The OC image scanning start position is shifted inside the document edge.
- 6) Set the main cassette lead edge void adjustment value (Exposure display <<TEXT>> ON) \* to [1]  
The lead edge void becomes the minimum.
- 7) Set the main cassette print start position value (Exposure display <<AUTO+MAIN CASSETTE LAMP>> ON) to [1] and make a copy.  
The print start position is shifted inside the document edge.



\* The dimension varies depending on the model.

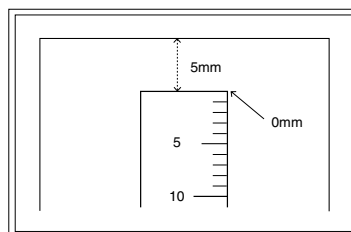
- 8) Measure the image loss R of the copied image. Enter the set value of the image scanning lead edge position (Exposure display <<PHOTO>> ON) again.

•1 step of the set value corresponds to about 0.1mm shift.

•Calculate the set value from the formula below.

$$R/0.1(\text{mm}) = \text{Image loss set value}$$

$$<R: \text{Image loss measurement value (mm)}>$$



\* The scanning edge is set.  
(A line may be printed by scanning the document edge.)

Example:  $4/0.1 = 40 = \text{about } 40$

Note:If the set value is not obtained from the above formula, perform the fine adjustment.



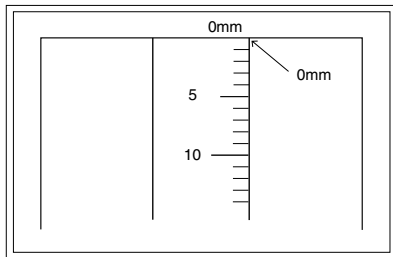
9) Measure the distance H between the paper lead edge and the image print start position. Set the image print start position set value (Exposure display <<AUTO+MAIN CASSETTE LAMP>> ON) again.

•1 step of the set value corresponds to about 0.1mm shift.

•Calculate the set value from the formula below.

$H/0.1(\text{mm}) = \text{Image print start position set value}$

<H: Print start position measurement value (mm)>



\*Fit the print edge with the paper edge, and perform the lead edge adjustment.

Example:  $5/0.1 = 50 = \text{about } 50$

Note: If the set value is not obtained from the above formula, perform the fine adjustment.

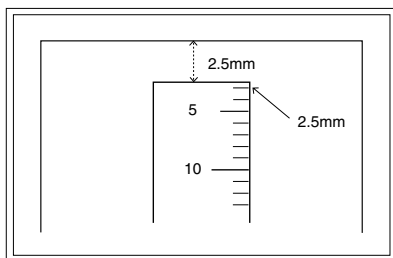
10) Set the lead edge void adjustment value (Exposure display <<TEXT>> ON)\* again.

•1 step of the set value corresponds to about 0.1mm shift.

•Calculate the set value from the formula below.

$B/0.05(\text{mm}) = \text{Lead edge void adjustment value}$

<B: Lead edge void (mm)>



Example: When setting the lead edge void to 2.5mm  
 $2.5 / 0.05 = \text{about } 50$

Note: If the set value is not obtained from the above formula, perform the fine adjustment.

\* 2nd cassette lead edge void adjustment: Exposure display <<AUTO + TEXT + PHOTO>>

Multi bypass tray lead edge void adjustment: Exposure display <<TEXT + PHOTO>>

#### <Duplex mode adjustment>

OC 2nd print surface (Auto duplex) lead edge position adjustment: SIM50-19 <<PHOTO>>

\* For the adjustment procedure, set to S → D mode before execution.

Note: Before performing the 2nd print surface lead edge position adjustment and the lead edge void adjustment, be sure to perform the 1st print surface lead edge position adjustment in advance, and be sure to perform the 2nd print surface lead edge position adjustment and then the lead edge void adjustment in this sequence.

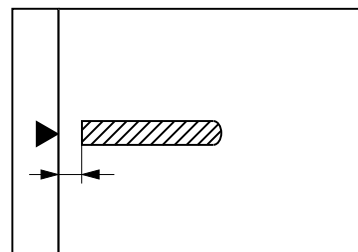
#### <Adjustment specification>

Adjustment mode	SIM	LED	Set value	Spec value	Set range
OC image lead edge position	SIM 50-1	PHOTO	R/0.1	Lead edge void: 1 - 4mm Image loss: 3mm or less	1 ~ 99
Main cassette print start position		AUTO + MAIN	B/0.1		
2nd cassette print start position		AUTO + 2nd CASSETTE			
Multi bypass tray print start position		AUTO + MULTI			
Lead edge void		TEXT	B/0.05		
OC 2nd print surface lead edge position adjustment	SIM 50-19*	PHOTO	1 step: 0.1mm shift		

\* (Set to S → D mode for before execution)

#### b.SPF image lead edge position adjustment (SIM50-6)

1) Set a scale on the OC table as shown below.



Note: Since the printed copy is used as a test chart, put the scale in parallel with the edge lines.

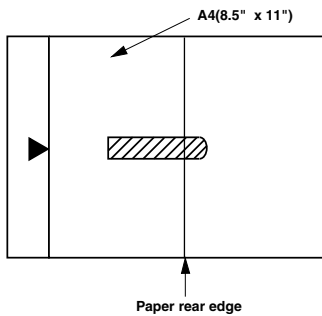
- 2) Make a copy, Then use the copy output as an original to make an SPF copy again.
- 3) Check the copy output. If necessary, perform the following adjustment procedures.
- 4) Execute SIM 50-6.
- 5) Set the SPF lead edge position set value (Exposure display <<AUTO>> ON) so that the same image is obtained as that obtained in the previous OC image lead edge position adjustment.

#### <Adjustment specification>

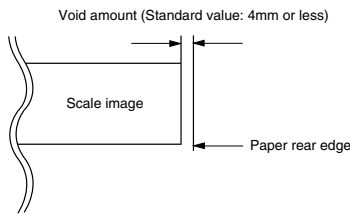
Adjustment mode	SIM	LED	Set value	Spec value	Set range
SPF image lead edge position (1st print surface)	SIM 50-6	AUTO	1 step: 0.1mm shift	Lead edge void: 1 - 4mm Image loss: 3mm or less	1 ~ 99
(2nd print surface)		TEXT			

**c.Rear edge void adjustment (SIM50-1, SIM50-19)**

- 1) Set a scale as shown in the figure below.



- 2) Set the document size to A4 (8.5" x 11"), and make a copy at 100%.  
3) If necessary, perform the following adjustment procedure.



- 4) Execute SIM 50-1 and set the density mode to AUTO + TEXT + PHOTO (Rear edge void).The currently set adjustment value is displayed.  
5) Enter the set value and press the start key. The correction value is stored and a copy is made.

**<Duplex mode adjustment>**

- \* 1st print surface (auto duplex) rear edge void adjustment: SIM50-19 <<AUTO>>
- \* 2nd print surface (auto duplex) rear edge void adjustment: SIM50-19<<TEXT>>
- \* Set to S → D mode before execution.

Note: Before performing the 2nd print surface rear edge void adjustment, be sure to perform the 2nd print surface lead edge position adjustment. Never reverse the sequence.

**<Adjustment specification>**

Mode	SIM	LED	Set value	Specifi- cation	Set range
Rear edge void	SIM 50-1	AUTO + TEXT + PHOTO	1 step: 0.1mm shift	4mm or less	1 ~ 99
1st print surface rear edge void	SIM 50-19*	AUTO			
2nd print surface rear edge void	SIM 50-19*	TEXT			

- \* Set to S → D mode before execution

**d. Paper off center adjustment (SIM50-10)**

- 1) Set a test chart (UKOG-0089CSZZ) on the document table.  
2) Select a paper feed port and make a copy. Compare the copy and the test chart. If necessary, perform the following adjustment procedure.  
3) Execute SIM 50-10. After completion of warm-up, shading is performed and the currently set off center adjustment value of each paper feed port is displayed.  
4) Enter the set value and press the start key. The correction value is stored and a copy is made.

**<Duplex mode adjustment>**

- \* 2nd print surface (auto duplex) off-center adjustment: SIM50-10<<TEXT+MAIN CASSETTE>>

**<Adjustment specification>**

Mode	SIM	LED	Set value	Specifi- cation	Set range
Paper off center	SIM 50-10	AUTO + Selected tray ON	Add 1: 0.1mm shift to R side.	Single: Center ±2.0mm	1 ~ 99
2nd print surface off- center	SIM 50-10	TEXT + MAIN CASSETTE	Reduce 1: 0.1mm shift to L side.	Duplex: Center ±2.5mm	

**e.Side edge void area adjustment (SIM26-43)**

Note: Before performing this adjustment, be sure to check that the paper off center adjustment (SIM 50-10) is completed.

- 1) Set a test chart (UKOG-0089CSZZ) on the document table.  
2) Select a paper feed port and make two copies. Compare the 2nd copy and the test chart. If necessary, perform the following adjustment procedure.  
\* The 1st copy does not show the void. Be sure to check the 2nd copy.  
3) Execute SIM 26-43 and set the density mode to AUTO(right edge void) + TEXT (Left edge void). The currently set adjustment value is displayed.  
4) Enter the set value and press the start key. The correction value is stored.

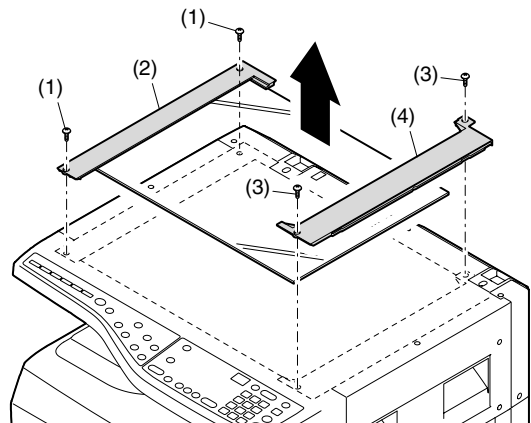
**<Adjustment specification>**

ode	SIM	LED	Set value	Specifi- cation	Set range
Left edge void	SIM 26-43	AUTO (right edge) + TEXT (left edge)	1 step: 0.5mm shift	0.5 ~ 4mm	1 ~ 99

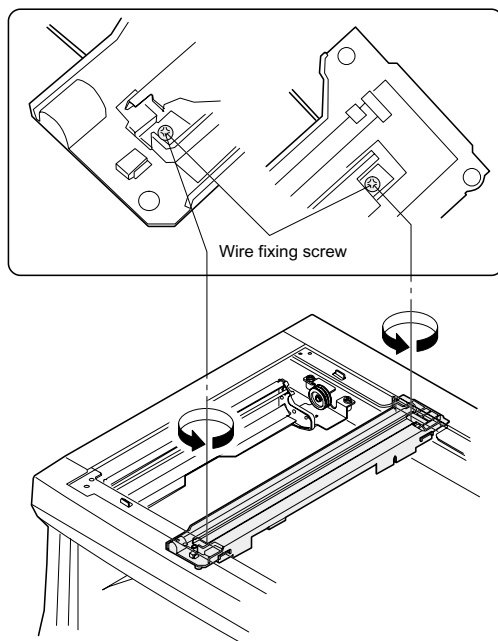
- \* The void adjustment values on the right and the left must be the same.

**(2) Main scanning direction(FR direction) distortion balance adjustment**

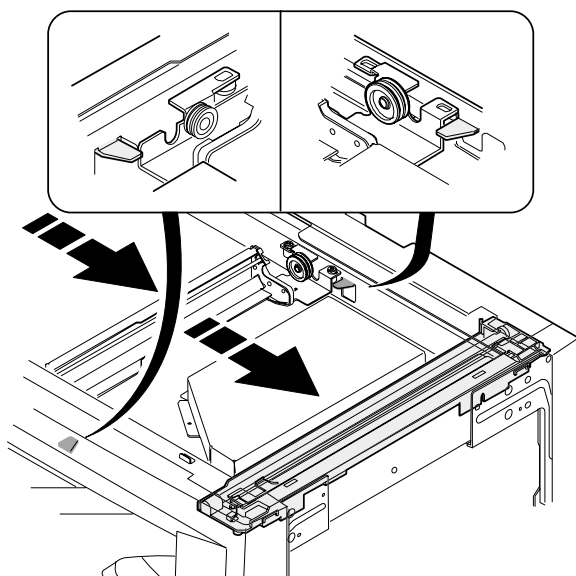
- 1) Remove the OC glass and the right cabinet.



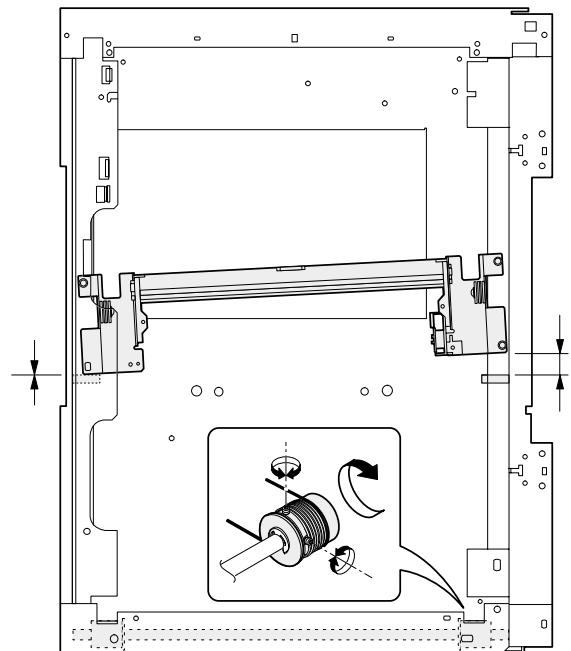
- 2) Loosen the copy lamp unit wire fixing screw.



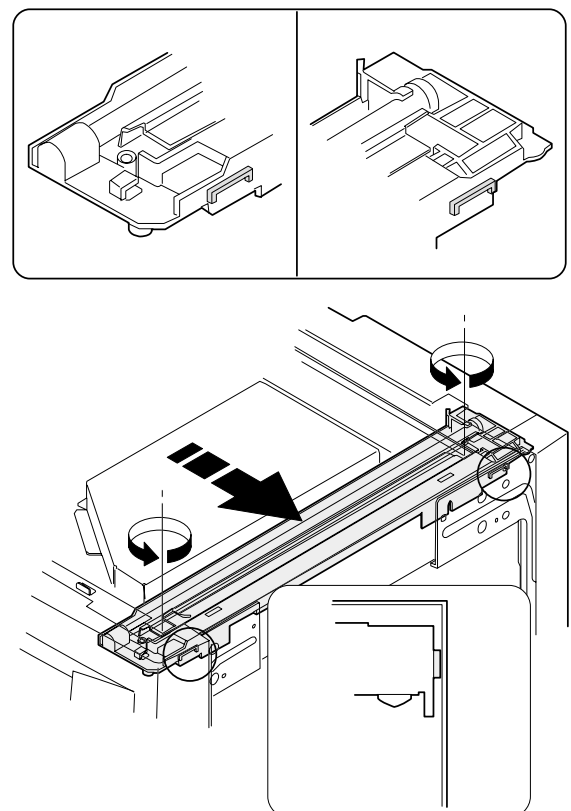
- 3) Manually turn the mirror base drive pulley and bring No. 2/3 mirror base unit into contact with the positioning plate. At that time, if the front frame side and the rear frame side of No. 2/3 mirror base unit are brought into contact with the positioning plate at the same time, the mirror base unit parallelism is proper. If one of them is in contact with the positioning plate, perform the adjustment of 4).



- 4) Loosen the set screw of the scanner drive pulley which is not in contact with No. 2/3 mirror base unit positioning plate.  
5) Without moving the scanner drive pulley shaft, manually turn the scanner drive pulley until the positioning plate is brought into contact with No. 2/3 mirror base unit, then fix the scanner drive pulley.



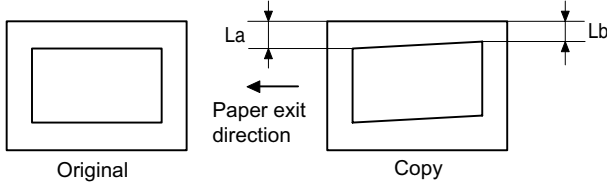
- 6) Put No. 2/3 mirror base unit on the positioning plate again, push the projections on the front frame side and the rear frame side of the copy lamp unit to the corner frame, and tighten the wire fixing screw.



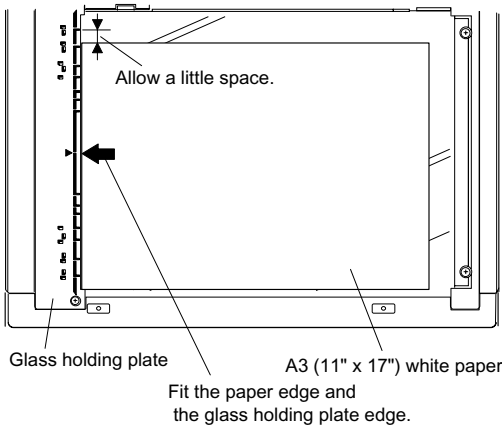
### (3)Main scanning direction (FR direction) distortion adjustment

This adjustment must be performed in the following cases:

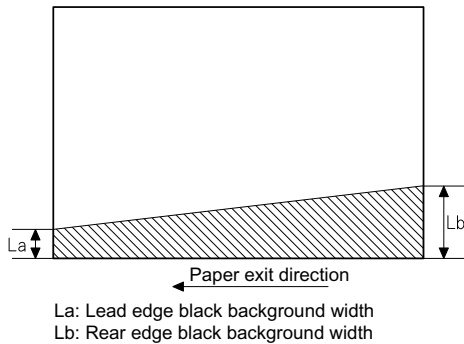
- When the mirror base drive wire is replaced.
- When the lamp unit, or No. 2/3 mirror holder is replaced.
- When a copy as shown is made.



- 1) Set A3 (11" x 17") white paper on the original table as shown below.

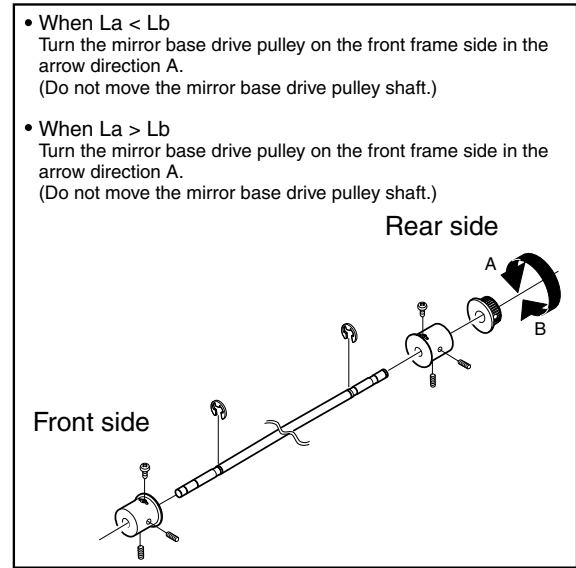


- 2) Open the original cover and make a normal (100%) copy.
- 3) Measure the width of the black background at the lead edge and at the rear edge.



If the width (La) of the black background at the lead edge is equal that (Lb) at the rear edge, there is no need to execute the following procedures of 4) ~ 7).

- 4) Loosen the mirror base drive pulley fixing screw on the front frame side or on the rear frame side.



- 5) Tighten the mirror base drive pulley fixing screw.

#### <Adjustment specification>

La = Lb

- 6) Execute the main scanning direction (FR) distortion balance adjustment previously described in 2) again.

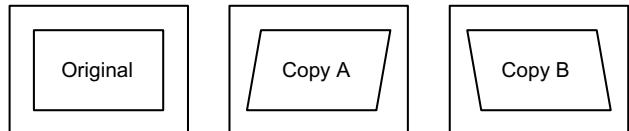
### (4) Sub scanning direction (scanning direction) distortion adjustment

When there is no skew copy in the mirror base scanning direction and there is no horizontal error (right angle to the scanning direction), the adjustment can be made by adjusting the No. 2/3 mirror base unit rail height.

Before performing this adjustment, be sure to perform the horizontal image distortion adjustment in the laser scanner section.

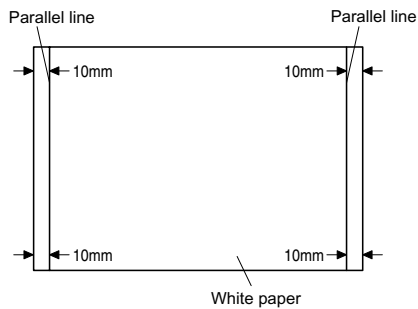
This adjustment must be performed in the following cases:

- When the mirror base wire is replaced.
- When the copy lamp unit or No. 2/3 mirror unit is replaced.
- When the mirror unit rail is replaced or moved.
- When a following copy is made.

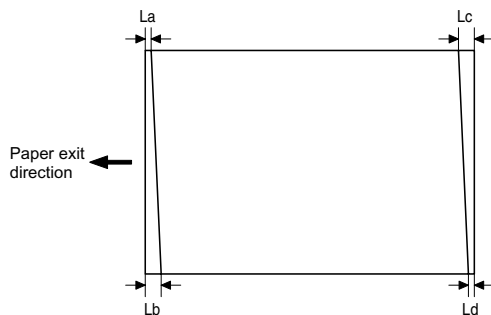


1) Making of a test sheet

Make test sheet by drawing parallel lines at 10mm from the both ends of A3 (11" x 17") white paper as shown below. (These lines must be correctly parallel to each other.)

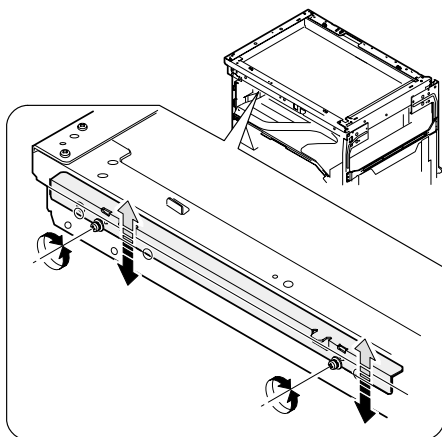


- 2) Make a normal (100%) copy of the test sheet on A3 (11" x 17") paper. (Fit the paper edge with the glass holding plate edge.)
- 3) Measure the distances ( $L_a$ ,  $L_b$ ,  $L_c$ ,  $L_d$ ) at the four corners as shown below.



When  $L_a = L_b$  and  $L_c = L_d$ , no need to perform the procedures 4) and 5).

- 4) Move the mirror base F rail position up and down (in the arrow direction) to adjust.



Note: If the rear side rail is used for the adjustment, the scanning position of the white balance sheet is shifted and "E7-04" may occur only when scanning with the SPF. Therefore it is advisable to use the front side rail for the adjustment.

- When  $L_a > L_b$   
Shift the mirror base B rail upward by the half of the difference of  $L_a - L_b$ .
  - When  $L_a < L_b$   
Shift the mirror base B rail downward by the half of the difference of  $L_b - L_a$ .  
Example: When  $L_a = 12\text{mm}$  and  $L_b = 9\text{mm}$ , shift the mirror base B rail upward by 1.5mm.
  - When  $L_c > L_d$   
Shift the mirror base B rail downward by the half of the difference of  $L_c - L_d$ .
  - When  $L_c < L_d$   
Shift the mirror base B rail downward by the half of the difference of  $L_d - L_c$ .
- \* When moving the mirror base rail, hold the mirror base rail with your hand.

<Adjustment specification>

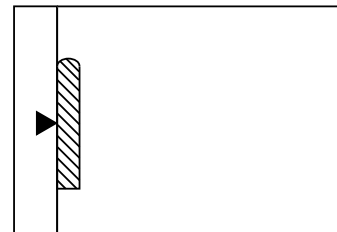
$L_a = L_b$ ,  $L_c = L_d$

- 5) After completion of adjustment, manually turn the mirror base drive pulley, scan the mirror base A and mirror base B fully, and check that the mirror bases are not in contact with each other.
- \* If the mirror base rail is moved extremely, the mirror base may be in contact with the frame or the original glass. Be careful to avoid this.

(5) Main scanning direction (FR direction) magnification ratio adjustment (SIM 48-1)

Note: Before performing this adjustment, be sure to check that the CCD unit is properly installed.

- 1) Put a scale on the original table as shown below.



- 2) Execute SIM 48-1.
- 3) After warm-up, shading is performed and the current set value of the main scanning direction magnification ratio is displayed on the display section in 2 digits.
- 4) Select the mode and press the start key again.
- 5) Manual correction mode (TEXT lamp ON)  
Enter the set value and press the start key.  
The set value is stored and a copy is made.

### <Adjustment specification>

Note: A judgment must be made with 200mm width, and must not be made with 100mm width.

Mode	Specification	SIM	Set value	Set range
Main scanning direction magnification ratio	At normal: $\pm 1.0\%$	SIM 48-1	Add 1:0.1% increase Reduce 1: 0.1% decrease	1 ~ 99

### (6) Sub scanning direction (scanning direction) magnification ratio adjustment (SIM 48-1, SIM 48-5)

#### a. OC mode in copying (SIM48-1)

Note: Before performing this adjustment, be sure to check that the CCD unit is properly installed.

- Put a scale on the original table as shown below, and make a normal (100%) copy.
- Compare the scale image and the actual image. If necessary, perform the following adjustment procedures.
- Execute SIM 48-1.<<PHOTO>>
- After warm-up, shading is performed and the current set value of the main scanning direction magnification ratio is displayed on the display section in 2 digits.
- When the photo lamp is lighted by pressing the density selection key, the current magnification ratio correction value in the sub scanning direction is displayed in lower 2 digits of the display section.
- Enter the set value and press the start key.  
The set value is stored and a copy is made.

### <Adjustment specification>

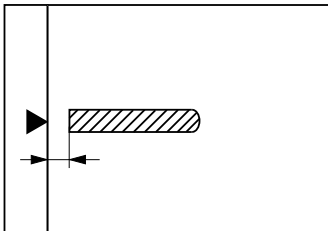
Mode	Specification	SIM	Set value	Set range
Sub scanning direction magnification ratio (OC mode)	Normal $\pm 1.0\%$	SIM 48-1 (PHOTO)	Add 1:0.1% increase Reduce 1: 0.1% decrease	1 ~ 99

#### b. RSPF sub scanning direction magnification ratio (SIM48-5)

Note:

- Before performing this adjustment, be sure to check that the CCD unit is properly installed.
- Before performing this adjustment, the OC mode adjustment in copying must be completed.

- Put a scale on the original table as shown below, and make a normal (100%) copy to make a test chart.



Note: Since the printed copy is used as a test chart, put the scale in parallel with the edge lines.

- Set the test chart on the SPF and make a normal (100%) copy.
- Compare the scale image and the actual image. If necessary, perform the following adjustment procedures.
- Execute SIM 48-5.
- After warm-up, shading is performed.  
The auto density lamp lights up and the current front surface sub scanning direction magnification ratio correction value is displayed in two digits on the display section.
- Enter the set value and press the start key.  
The set value is stored and a copy is made.
- Change the mode from the duplex original mode to the simplex original mode.  
"MANUAL" lamp lights up and the current back surface sub scanning direction magnification ratio is displayed in two digits on the display section.
- Enter the set value and press the start key.  
The set value is stored and a copy is made.

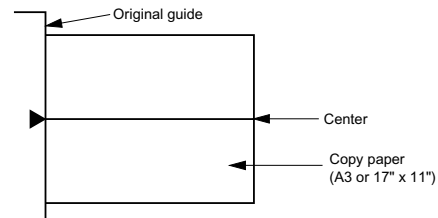
### <Adjustment specification>

Mode	Specification	SIM	Set value	Set range
Sub scanning direction magnification ratio (SPF mode)	Normal $\pm 1.0\%$	SIM 48-5	Add 1:0.1% increase Reduce 1: 0.1% decrease	1 ~ 99

### (7) Off center adjustment (SIM 50-12)

#### a. OC mode (SIM50-12)

- Make a test chart as shown below and set it so that its center line is fit with the original guide center mark.
- \* To make a test chart, draw a line on A3 or 11" x 17" paper at the center in the paper transport direction.



- Make a normal copy from the manual paper feed tray, and compare the copy and the test chart.  
If necessary, perform the following adjustment procedures.
- Execute SIM 50-12.
- After warm-up, shading is performed and the current set value of the off center adjustment is displayed on the display section in 2 digits.
- Enter the set value and press the start key.  
The set value is stored and a copy is made.

### <Adjustment specification>

Mode	Specification	SIM	Set value	Set range
Original off center mode (OC mode)	Single: Center $\pm 2.0\text{mm}$	SIM 50-12 (AE lamp ON)	Add 1: 0.1mm shift to R side Reduce 1: 0.1mm shift to L side	1 ~ 99

## b. SPF original off-center adjustment (SIM50-12)

Note: Before performing this adjustment, be sure to check that the paper off center is properly adjusted.

- 1) Make a test chart for the center position adjustment and set it on the SPF.

### <Adjustment specification>

Draw a line on a paper in the scanning direction.

- 2) Make a normal copy from the manual paper feed tray, and compare the copy and the original test chart.  
If necessary, perform the following adjustment procedures.
- 3) Execute SIM 50-12.
- 4) After warm-up, shading is performed and the current set value of the off center adjustment at each paper feed port is displayed on the display section in 2 digits.
- 5) Enter the set value and press the start key.  
The set value is stored and a copy is made.

### <Adjustment specification>

Mode	Specification	SIM	Set value	Set range
Original off center mode (SPF mode)	Single: Center $\pm 3.0\text{mm}$ (TEXT lamp)	SIM 50-12	Add 1: 0.1mm shift to R side Reduce 1: 0.1mm shift to L side	1 ~ 99
	Duplex: Center $\pm 3.5\text{mm}$ (PHOTO lamp)			

## (8) SPF white correction pixel position adjustment(SIM63-7) (required in an SPF model when replacing the lens unit)

- 1) Fully open the SPF.
- 2) Execute SIM 63-7.
- 3) When the operation panel displays "COMPLETE,"the adjustment is completed.
- 4) If the operation panel displays "ERROR,"perform the following measures.

•When the display is 0:

Check that the SPF is open.

Check that the lamp is ON.(If the lamp is OFF,check the MCU connector.)

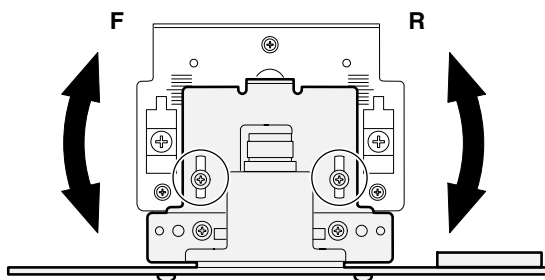
Check that the CCD harness is properly inserted into the MCU connector.

•When the display is 281 or above:

- 1) Remove the table glass.
- 2) Remove the dark box.
- 3) Slide the lens unit toward the front side and attach it,then execute SIM.

•When the display is 143 or below:

- 1) Remove the table glass.
- 2) Remove the dark box.
- 3) Slide the lens unit toward the rear side and attach it,then execute SIM.



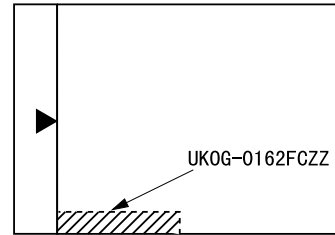
\* When the lens unit is moved,execute the OC main scanning magnification ratio auto adjustment,SIM 48-1-1,IM48-3 and the PF original off-center adjustment.

\* This adjustment is basically O.K.with IM 63-7.

## C.Image density adjustment

### (1)Copy mode (SIM 46-1)

- 1)Set a test chart (UKOG-0162FCZZ) on the OC table as shown below.



- 2) Put several sheets of A3 or 11" x 17" white paper on the test chart.
- 3) Execute SIM 46-1.
- 4) After warm-up, shading is performed and the current set value of the density level is displayed on the display section in 2 digits.  
For mode selection, use the density select key.
- 5) Change the set value with the 10-key to adjust the copy image density.
- 6) Make a copy and check that the specification below is satisfied.

### <Adjustment specification>

Density mode	Display lamp	Exposure level	Sharp Gray Chart output	Set value	Set range
Auto	Auto	-	"2" is slightly copied.	The greater the set value is the greater the density is The smaller the set value is the smaller the density is.	1 ~ 99
Text	Text	3	"3" is slightly copied.		
Photo	Photo	3	"2" is slightly copied.		
Toner save	Text/ Photo	3	"3" is slightly copied		
Toner save	Auto/ Photo	-	"2" is slightly copied		

## [7] SIMULATIONS

### 1. Entering the simulation mode

Perform the following procedure to enter the simulation mode.

"#" key → Interrupt key → "C" key → Interrupt key →

Main code → Start key → Sub code → Start key

### 2. Canceling the simulation mode

When the clear all key is pressed, the simulation mode is cancelled.

When the interruption key is pressed, the process is interrupted and the screen returns to the sub code entering display.

\* After canceling the simulation mode, be sure to turn OFF/ON the power and check the operation.

Note: If the machine is terminated by a jam error or paper empty during copying in the adjustment by the simulation, recopying is required.

### 3. List of simulations

Main code	Sub code	Contents
01	01	Mirror scanning operation
	02	Mirror home position sensor (MHPS) status display
	06	Mirror scanning operation aging
02	01	Single paper feeder (SPF) aging
	02	SPF sensor status display
	03	SPF motor operation check
	08	SPG paper feed solenoid operation check
	09	RSPF reverse solenoid operation check
	10	RSPF paper exit gate solenoid operation check
	11	SPF PS release solenoid operation check
03	02	Shifter sensors status display
	03	Shifter operation check
	11	Shifter home position check
05	01	Operation panel display check
	02	Fusing lamp and cooling fan operation check
	03	Copy lamp lighting check
06	01	Paper feed solenoid operation check
	02	Resist roller solenoid operation check
	10	Main cassette semicircular roller cleaning
07	01	Warm-up display and aging with jam
	06	Intermittent aging
	08	Shifting with warm-up display
08	01	Developing bias output
	02	Main charger output (Grid = HIGH)
	03	Main charger output (Grid = LOW)
	06	Transfer charger output
09	01	Duplex motor forward rotation check
	02	Duplex motor reverse rotation check
	04	Duplex motor RPM adjustment
	05	Duplex motor switchback time adjustment
10	-	Toner motor operation
14	-	Trouble cancel (except for U2)
16	-	U2 trouble cancel
20	01	Maintenance counter clear
21	01	Maintenance cycle setting
	02	Mini maintenance cycle setting
22	01	Maintenance counter display
	02	Maintenance preset display
	03	Jam memory display
	04	Jam total counter display
	05	Total counter display
	06	Developing counter display
	07	Mini maintenance preset display
	08	SPF counter display
	09	Paper feed counter display
	12	Drum counter display
	13	CRUM type display
	14	P-ROM version display
	15	Trouble memory display
	16	Duplex print counter display
	17	Copy counter display
	18	Printer counter display
	19	Scanner mode counter display
	21	Scanner counter display
	22	SPF jam counter display



Main code	Sub code	Contents
24	01	Jam total counter clear
	02	Trouble memory clear
	04	SPF counter clear
	05	Duplex print counter clear
	06	Paper feed counter clear
	07	Drum counter clear
	08	Copy counter clear
	09	Printer counter clear
	13	Scanner counter clear
	14	SPF jam total counter clear
	15	Scanner mode counter clear
25	01	Main motor operation check
	10	Polygon motor operation check
26	02	Size setting
	03	Auditor setting
	04	Copier duplex setting
	05	Count mode setting
	06	Destination setting
	07	Machine condition check (CPM)
	18	Toner save mode setting
	30	CE mark conformity control ON/OFF
	31	Auditor mode exclusive setup
	36	Cancel of stop at maintenance life over
	37	Cancel of stop at developer life over
	38	Cancel of stop at drum life over
	39	Memory capacity check
	42	Transfer ON/OFF timing control setting
30	01	Paper sensor status display
	01	Developing counter clear
43	01	Fusing temperature setting
	10	Postcard paper feed cycle setting
	11	Postcard size paper fusing temperature setting
	12	Standby mode fusing fan rotation setting
	13	Fusing paper interval control allow/inhibit setting
44	34	Transfer current setting
	40	Setting of rotation time before toner supply
46	01	Copy density adjustment (300dpi)
	02	Copy density adjustment (600dpi)
	09	Copy exposure level adjustment, individual setting (Text) 300dpi
	10	Copy exposure level adjustment, individual setting (Text) 600dpi
	11	Copy exposure level adjustment, individual setting (Photo) 600dpi
	18	Image contrast adjustment (300dpi)
	19	Exposure mode setting (Gamma table setting/AE operation mode setting/Photo image process setting)
	20	SPF exposure correction
	29	Image contrast adjustment (600dpi)
	30	AE limit setting
48	01	Main scanning magnification ratio adjustment
	05	SPF/RSPF mode sub scanning magnification ratio adjustment in copying
49	01	Flash ROM program writing mode

Main code	Sub code	Contents
50	01	Image lead edge adjustment
	06	Copy lead edge position adjustment (SPF/RSPF)
	10	Paper off-center adjustment
	12	Document off-center adjustment
	18	Memory reverse position adjustment in duplex copy
	19	Rear edge void adjustment in duplex copy
51	02	Resist amount adjustment
53	08	SPF scanning position automatic adjustment
61	03	HSYNC output check
63	01	Shading check
	07	SPF automatic correction
64	01	Self print

## 4. Contents of simulations

Main code	Sub code	Contents	Details of operation																						
01	01	Mirror scanning operation	When the [START] key is pressed, the home position is checked in the first place, and the mirror base performs A3 full scanning once at the set magnification ratio speed. During this scanning, the set magnification ratio is displayed. The mirror home position sensor status is displayed with the photoconductor cartridge replacement lamp. (The lamp lights up when the mirror is in the home position.) During scanning, the copy lamp lights up. When the [Interrupt] key is pressed, the operation is interrupted to go to the sub code input standby mode.																						
	02	Mirror home position sensor (MHPS) status display	Used to monitor the mirror home position sensor. When the sensor is ON, the photoconductor cartridge replacement lamp is lighted. During that time, the display section displays the sub code. When the [Interrupt] key is pressed, the machine goes to the sub code input standby mode. (When the CA key is pressed, the simulation is terminated.)																						
	06	Mirror scanning operation aging	When the [START] key is pressed, the mirror base performs A3 full scanning at the set magnification ratio speed. During scanning, the set magnification ratio is displayed. After 3 seconds, the mirror base performs full scanning again. During scanning, the set magnification ratio is displayed. * When the [START] key is pressed again, the ready lamp turns and remains off. The photoconductor cartridge replacement lamp displays the status of the mirror home position sensor. (The lamp lights up when the mirror is in the home position.) During aging, the copy lamp lights up. When the [Interrupt] key is pressed, the operation is interrupted if operating, and the machine goes into the sub code input standby mode.																						
02	01	Single paper feeder (SPF) aging	When the [START] key is pressed, the set magnification ratio is acquired and document transport operation of single surface is performed in the case of SPF or document transport operation of duplex surfaces is performed in the case of RSPF. Since, however, there is no limited condition for this operation, it does not stop even at a paper jam. During operation, the LED on the display section corresponding to the selected magnification ratio lights up, and the magnification ratio is displayed on the 7-seg display. When the [Interrupt] key is pressed at that time, the machine goes to the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated. <b>&lt;Conditions for executing this simulation&gt;</b> Set paper on the SPF and fix it with tape. If paper is not fixed, the operations cannot be guaranteed.																						
	02	SPF sensor status display	(In order to receive the sensor change notification, the load must be decreased.) The sensor status (ON/OFF) in the SPF can be checked with the following lamps. When a sensor detects paper, it turns on. The open/close detection sensor turns on when the machine is opened. <table><tr><th>Display lamp</th><th>Sensor</th></tr><tr><td>Developing cartridge replacement lamp</td><td>SPF document set sensor</td></tr><tr><td>Copier jam lamp</td><td>SPF document transport sensor</td></tr><tr><td>Photoconductor cartridge replacement lamp</td><td>SPF unit (OC cover) open/close sensor</td></tr><tr><td>Paper empty lamp</td><td>SPF paper exit sensor</td></tr><tr><td>SPF jam lamp</td><td>SPF paper feed cover open/close sensor</td></tr><tr><td>Manual paper feed lamp</td><td>SPF paper length sensor 1</td></tr><tr><td>Tray jam lamp</td><td>SPF paper length sensor 2</td></tr><tr><td>AE lamp</td><td>SPF paper feed width sensor (small)</td></tr><tr><td>TEXT lamp</td><td>SPF paper feed width sensor (middle)</td></tr><tr><td>PHOTO lamp</td><td>SPF paper feed width sensor (large)</td></tr></table> When the [Interrupt] key is pressed, the machine goes to the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.	Display lamp	Sensor	Developing cartridge replacement lamp	SPF document set sensor	Copier jam lamp	SPF document transport sensor	Photoconductor cartridge replacement lamp	SPF unit (OC cover) open/close sensor	Paper empty lamp	SPF paper exit sensor	SPF jam lamp	SPF paper feed cover open/close sensor	Manual paper feed lamp	SPF paper length sensor 1	Tray jam lamp	SPF paper length sensor 2	AE lamp	SPF paper feed width sensor (small)	TEXT lamp	SPF paper feed width sensor (middle)	PHOTO lamp	SPF paper feed width sensor (large)
	Display lamp	Sensor																							
	Developing cartridge replacement lamp	SPF document set sensor																							
Copier jam lamp	SPF document transport sensor																								
Photoconductor cartridge replacement lamp	SPF unit (OC cover) open/close sensor																								
Paper empty lamp	SPF paper exit sensor																								
SPF jam lamp	SPF paper feed cover open/close sensor																								
Manual paper feed lamp	SPF paper length sensor 1																								
Tray jam lamp	SPF paper length sensor 2																								
AE lamp	SPF paper feed width sensor (small)																								
TEXT lamp	SPF paper feed width sensor (middle)																								
PHOTO lamp	SPF paper feed width sensor (large)																								
03	SPF motor operation check	When the [START] key is pressed, the motor rotates for 10 sec at the speed corresponding to the set magnification ratio. When the [Interrupt] key is pressed, the machine stops operation and goes to the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.																							
08	SPG paper feed solenoid operation check	The SPF paper feed solenoid (PSOL) is turned ON for 500msec and OFF for 500msec. This operation is repeated 20 times. After completion of the process, the machine goes to the sub code input standby mode. When the [Interrupt] key is pressed during the process, the machine goes to the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.																							
09	RSPF reverse solenoid operation check	The RSPF reverse solenoid (PSOL) is turned ON for 500msec and OFF for 500msec. This operation is repeated 20 times. After completion of the process, the machine goes to the sub code input standby mode. When the [Interrupt] key is pressed during the process, the machine goes to the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.																							
10	RSPF paper exit gate solenoid operation check	The RSPF paper exit gate solenoid (GSOL) is turned ON for 500msec and OFF for 500msec. This operation is repeated 20 times. After completion of the process, the machine goes to the sub code input standby mode. When the [Interrupt] key is pressed during the process, the machine goes to the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.																							

Main code	Sub code	Contents	Details of operation					
02	11	SPF PS release solenoid operation check	The SPF PS release solenoid (CLH) is turned ON for 500msec and OFF for 500msec. This operation is repeated 20 times. After completion of the process, the machine goes to the sub code input standby mode. When the [Interrupt] key is pressed during the process, the machine goes to the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.					
03	02	Shifter sensors status display	The shifter HP sensor is monitored. When the sensor is ON, the [Copier position jam lamp] is lighted. During this operation, the display section displays the sub code. When the [Interrupt] key is pressed, the machine goes to the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.					
	03	Shifter operation check	The shifter is reciprocated 4 times. During the process, the display section displays the sub code. After completion of the process, the machine goes to the sub code input standby mode. When the [Interrupt] key is pressed during the process, the machine goes to the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated. To stop the shifter, however, stop is in the home position.					
	11	Shifter home position check	The shifter is moved in one direction by the specified steps. The 7-seg LED displays the sub code. While the shifter is moving, the shifter HP sensor is monitored. While the sensor is ON, the machine position jam lamp is lighted. <table border="1"><tr><td>3 key:</td><td>Step toward the front</td></tr><tr><td>4 key:</td><td>Step toward the rear</td></tr><tr><td>5 key:</td><td>Initial</td></tr></table> When the [Interrupt] key is pressed during the process, the machine goes to the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.	3 key:	Step toward the front	4 key:	Step toward the rear	5 key:
3 key:	Step toward the front							
4 key:	Step toward the rear							
5 key:	Initial							
05	01	Operation panel display check	<b>&lt;&lt;LED check mode (ALL ON/Individual ON)&gt;&gt;</b> When the [START] key is pressed in the sub code input mode, all the LED's (including the 7-seg lamps) are turned ON. After 5 sec of all ON, the machine goes to the sub code input standby mode. When the [Mode select] key is pressed during all ON, the lighting mode is shifted to the individual ON mode, where the LED's are individually lighted from the left top, to the left bottom, to the next line top, to the bottom, and so on. (For the 7-seg lamps, the 3-digit lamps are lighted at once.) After completion of lighting of all the lamps, the mode is shifted to the all ON mode. After 5 sec of all ON mode, the machine goes to the sub code input standby mode. <table border="1"><tr><td>Individual ON mode cycle:</td><td>300ms for ON</td><td>20ms for OFF</td></tr></table> When the [Interrupt] key is pressed in the LCD check mode, the machine goes back to the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated. When the [START] key is pressed with all the lamps ON, the machine goes back to the key input check mode. <b>&lt;&lt; Key input check mode&gt;&gt;</b> When the machine goes into the key input check mode, [- - -] is displayed on the copy quantity display. Every time when a key on the operation panel is pressed, the input value is added on the copy quantity display. [- - -] → [ 1 ] → [ 2 ] → ... When a key is pressed once, it is not counted again. When the [START] key is pressed, the input number is added and displayed for 3 sec, and the machine goes into the LED lighting check mode (LED all ON state). When the [Interrupt] key is pressed for the first time, it is counted. When the key is pressed for the second time, the machine goes into the sub code input mode. When the [CA] key is pressed for the first time, it is counted. When the key is pressed for the second time, the simulation is terminated. (Note for the key input check mode). •Press the [START] key at the end. (When the key is pressed during the process, the machine goes into the LED lighting check mode (all ON state).). •When two or more keys are pressed simultaneously, they are ignored.	Individual ON mode cycle:	300ms for ON	20ms for OFF		
Individual ON mode cycle:	300ms for ON	20ms for OFF						
	02	Fusing lamp and cooling fan operation check	When the [START] key is pressed, the fusing lamp turns ON for 500ms and OFF for 500ms. The operation is repeated 5 times. During this process, the cooling fan motor rotates. After completion of the process, the machine goes into the sub code input standby mode.					
	03	Copy lamp lighting check	When the [START] key is pressed, the copy lamp lights up for 5 sec. After completion of lighting, the machine goes into the sub code input mode. When the [Interrupt] key is pressed, the process is interrupted and the machine goes into the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.					

Main code	Sub code	Contents	Details of operation																
06	01	Paper feed solenoid operation check	<p>When this simulation is executed, the sub code is displayed on the 7-seg LED and the lamp corresponding to the solenoid lights up. Select a solenoid with the tray select key (the lamp corresponding to the solenoid lights up) and press the [START] key, and the machine repeats operation of ON for 500ms and OFF for 500ms. This operation is repeated 20 times. After that, the machine goes into the sub code entry standby mode.</p> <table><tr><th>Display lamp</th><th>Solenoid</th></tr><tr><td>Main cassette lamp</td><td>Main cassette paper feed solenoid</td></tr><tr><td>2nd cassette lamp</td><td>* 2nd cassette paper feed solenoid</td></tr><tr><td>3rd cassette lamp</td><td>* 3rd cassette paper feed solenoid</td></tr><tr><td>4th cassette lamp</td><td>* 4th cassette paper feed solenoid</td></tr><tr><td>Manual paper feed lamp</td><td>Manual paper feed solenoid</td></tr><tr><td>2nd cassette jam lamp</td><td>* 2nd cassette paper transport solenoid</td></tr><tr><td>Machine jam lamp &amp; 2nd cassette jam lamp</td><td>* 3rd cassette transport solenoid</td></tr></table> <p>* Supported for the installed models only. Skipped for the models without installation.</p>	Display lamp	Solenoid	Main cassette lamp	Main cassette paper feed solenoid	2nd cassette lamp	* 2nd cassette paper feed solenoid	3rd cassette lamp	* 3rd cassette paper feed solenoid	4th cassette lamp	* 4th cassette paper feed solenoid	Manual paper feed lamp	Manual paper feed solenoid	2nd cassette jam lamp	* 2nd cassette paper transport solenoid	Machine jam lamp & 2nd cassette jam lamp	* 3rd cassette transport solenoid
	Display lamp	Solenoid																	
	Main cassette lamp	Main cassette paper feed solenoid																	
2nd cassette lamp	* 2nd cassette paper feed solenoid																		
3rd cassette lamp	* 3rd cassette paper feed solenoid																		
4th cassette lamp	* 4th cassette paper feed solenoid																		
Manual paper feed lamp	Manual paper feed solenoid																		
2nd cassette jam lamp	* 2nd cassette paper transport solenoid																		
Machine jam lamp & 2nd cassette jam lamp	* 3rd cassette transport solenoid																		
	02	Resist roller solenoid operation check	<p>When the [START] key is pressed in the sub code input state, the resist solenoid (RRS) turns ON for 500ms and OFF for 500ms. This operation is repeated 20 times. After completion of the process, the machine goes into the sub code input standby mode.</p>																
	10	Main cassette semicircular roller cleaning	<p>The main motor is rotated to rotate the semicircular roller of the main cassette one turn to face the semicircular roller down. (Remove the developing layer when performing this operation.) During this process, the sub code is displayed on the display section. After completion of the process, the machine goes into the sub code input standby mode.</p>																
07	01	Warm-up display and aging with jam	<p>Copying is repeated to make the set copy quantity. When this simulation is executed, warm-up is started and warm-up time is counted up every second from 0 and displayed. After completion of warm-up, warm-up time count is stopped. When the [CA] key is pressed, the ready lamp lights up. After that, when the copy quantity is inputted with keys and the [START] key is pressed, copying is repeated to make the set copy quantity. (Intermittent 0 sec)This simulation is canceled by turning off the power or performing a simulation that executes hardware reset.</p>																
	06	Intermittent aging	<p>Copying is repeated to make the set copy quantity. When this simulation is performed, warm-up is performed and the ready lamp is lighted. Enter the copy quantity with the key and press the [START] key, and copying is repeated to make the set copy quantity, the ready state remains for 3 sec, and copying is repeated again to make the set copy quantity. These operations are repeated. This simulation is canceled by turning off the power or performing a simulation that executes hardware reset.</p>																
	08	Shifting with warm-up display (Shifting similar to pressing the CA key)	<p>When the simulation code is entered, warm-up is started and warm-up time is counted up every second from 0 and displayed. When the [CA] key is pressed during counting up, the display section displays "0" and count-up process stops. However, warm-up is continued. After completion of warm-up, counting is stopped. Press the [CA] key to terminate the simulation mode. (This simulation is similar to SIM07-01, but without the aging function.)</p>																
08	01	Developing bias output	<p>When the [START] key is pressed, the developing bias signal is turned ON for 30 sec. However, to calculate the actual output value is calculated, execute SIM25-01. After completion of the process, the machine goes into the sub code input standby mode.</p>																
	02	Main charger output (Grid = HIGH)	<p>When the [START] key is pressed, the main charger output is supplied for 30 sec in the grid voltage HIGH mode. After completion of the process, the machine goes into the sub code input standby mode.</p>																
	03	Main charger output (Grid = LOW)	<p>When the [START] key is pressed, the main charger output is supplied for 30 sec in the grid voltage LOW mode. After completion of the process, the machine goes into the sub code input standby mode.</p>																
	06	Transfer charger output	<p>Select an output mode with the [Mode select] key and press the [START] key. The transfer charger output is delivered for 30 sec in the selected mode. After 30 sec of transfer charger output, the machine goes into the sub code entry standby mode.</p> <table><tr><th>Display lamp</th><th>Output mode</th></tr><tr><td>AE mode lamp</td><td>Normal size width: Front surface</td></tr><tr><td>TEXT mode lamp</td><td>Normal size width: Back surface</td></tr><tr><td>AE mode lamp &amp; PHOTO mode lamp</td><td>Small size width: Front surface</td></tr><tr><td>TEXT mode lamp &amp; PHOTO mode lamp</td><td>Small size width: Back surface</td></tr><tr><td>AE &amp; TEXT &amp; PHOTO mode lamp</td><td>Manual paper feed mode</td></tr></table> <p>•Small size is Letter R (A4R) or smaller.</p>	Display lamp	Output mode	AE mode lamp	Normal size width: Front surface	TEXT mode lamp	Normal size width: Back surface	AE mode lamp & PHOTO mode lamp	Small size width: Front surface	TEXT mode lamp & PHOTO mode lamp	Small size width: Back surface	AE & TEXT & PHOTO mode lamp	Manual paper feed mode				
Display lamp	Output mode																		
AE mode lamp	Normal size width: Front surface																		
TEXT mode lamp	Normal size width: Back surface																		
AE mode lamp & PHOTO mode lamp	Small size width: Front surface																		
TEXT mode lamp & PHOTO mode lamp	Small size width: Back surface																		
AE & TEXT & PHOTO mode lamp	Manual paper feed mode																		

Main code	Sub code	Contents	Details of operation														
09	01	Duplex motor forward rotation check	The duplex motor is driven in forward direction (in the paper exit direction) for 30 sec. During the process, the display section displays the sub code. After completion of the process, the machine goes into the sub code input standby mode. When the [Interrupt] key is pressed, the machine goes into the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.														
	02	Duplex motor reverse rotation check	The duplex motor is driven in reverse direction for 30 sec. During the process, the display section displays the sub code. After completion of the process, the machine goes into the sub code input standby mode. When the [Interrupt] key is pressed, the machine goes into the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.														
	04	Duplex motor RPM adjustment	When any key input is made, it is displayed on the display section. When the [START] key is pressed, the set code data are acquired and stored in the EEPROM, and the machine goes into the sub code input standby mode. When, however, the [START] key is pressed outside the set range, it is not assured. <table><tr><td>Set range: 1 - 13</td><td>Default: 4</td></tr></table> At that time, when the [Interrupt] key is pressed, the data are not rewritten and the machine goes into the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated without rewriting the data.	Set range: 1 - 13	Default: 4												
	Set range: 1 - 13	Default: 4															
	05	Duplex motor switchback time adjustment	When any key input is made, it is displayed on the display section. When the [START] key is pressed, the set code data are acquired and stored in the EEPROM, and the machine goes into the sub code input standby mode. <table><tr><td>Set range: 50 ~ 76</td><td>Default: 50</td></tr></table> (Change quantity 1 → 1-2 phase 3 steps) At that time, when the [Interrupt] key is pressed, the data are not rewritten and the machine goes into the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated without rewriting the data.	Set range: 50 ~ 76	Default: 50												
Set range: 50 ~ 76	Default: 50																
-	Toner motor operation	When the [START] key is pressed, the toner motor is driven for 30 sec. After completion of the process, the machine goes into the main code input standby mode. When the [Interrupt] key is pressed, the machine goes into the main code input standby mode.															
14	-	Trouble cancel (except for U2)	* Trouble to write into the EEPROM such as H trouble is canceled and hardware reset is performed.														
16	-	U2 trouble cancel	* U2 trouble is canceled and hardware reset is performed.														
20	01	Maintenance counter clear	When the [Start] key is pressed, the maintenance count value is cleared and "000000" is displayed. (Alternate display of "000" and "000")														
21	01	Maintenance cycle setting	The current set maintenance cycle code is displayed (initial display), and the set data are stored. <table><tr><th>Code</th><th>Setting</th></tr><tr><td>0</td><td>5,000 sheets</td></tr><tr><td>1</td><td>7,500 sheets</td></tr><tr><td>2</td><td>10,000 sheets</td></tr><tr><td>3</td><td>25,000 sheets</td></tr><tr><td>4</td><td>50,000 sheets * Default</td></tr><tr><td>5</td><td>Free (999,999 sheets)</td></tr></table>	Code	Setting	0	5,000 sheets	1	7,500 sheets	2	10,000 sheets	3	25,000 sheets	4	50,000 sheets * Default	5	Free (999,999 sheets)
	Code	Setting															
0	5,000 sheets																
1	7,500 sheets																
2	10,000 sheets																
3	25,000 sheets																
4	50,000 sheets * Default																
5	Free (999,999 sheets)																
02	Mini maintenance cycle setting (Valid only when the destination is set to Japan AB series.)	The current set maintenance cycle code is displayed (initial display), and the set data are stored. <table><tr><th>Code</th><th>Setting</th></tr><tr><td>0</td><td>5,000 sheets * Default</td></tr><tr><td>1</td><td>10,000 sheets</td></tr><tr><td>2</td><td>Free (999,999 sheets)</td></tr></table>	Code	Setting	0	5,000 sheets * Default	1	10,000 sheets	2	Free (999,999 sheets)							
Code	Setting																
0	5,000 sheets * Default																
1	10,000 sheets																
2	Free (999,999 sheets)																
22	01	Maintenance counter display	The maintenance counter value is displayed.														
	02	Maintenance preset display (Valid only when the destination is set to EX Japan)	The copy quantity corresponding to the code that is set with SIM21-01 is displayed. (For example: 50,000 sheets)														
	03	Jam memory display	The LED of the latest jam position is lighted. Every time when the magnification ratio display key is pressed, the jam memory data is acquired sequentially from the latest. The jam position is judged by the acquired data and the corresponding LED is lighted. The 7-seg display indicates the jam number. At that time, "A" is displayed on the upper first digit. When the last one is displayed, the latest one will be displayed again. Max. 30 jams from the latest are stored. When the [Interrupt] key is pressed, the machine goes into the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.														
	04	Jam total counter display	The jam total counter value is displayed.														
	05	Total counter display	The total counter value is displayed.														
	06	Developing counter display	The developing counter data is acquired and displayed on the 7-seg display. When the [Interrupt] key is pressed, the machine goes into the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.														

Main code	Sub code	Contents	Details of operation			
22	07	Mini maintenance preset display (Valid only when the destination is set to Japan AB series)	The mini maintenance cycle data is acquired and displayed on the 7-seg display. When the [Interrupt] key is pressed, the machine goes into the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.			
	08	SPF counter display	The SPF counter value is displayed.			
	09	Paper feed counter display	The counter value of the selected paper feed section is acquired from each variable, the data is displayed on the 7-seg display according to the regulations. When this simulation is executed, the value of the first cassette is displayed first. Press the tray select key to select the paper feed tray. When the [Interrupt] key is pressed, the machine goes into the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.			
	12	Drum counter display	The drum counter and the drum rotating time are displayed. To change the display mode, press the [Mode select] key.			
			Display lamp AE mode lamp TEXT mode lamp		Display mode Drum counter Drum rotating time	
	13	CRUM destination display	When this simulation is executed, the CRUM destination set (written) in the CRUM chip is displayed. This simulation is valid only for the models where the CRUM is valid.			
			7-seg display		Meaning (CRUM destination)	
			00		Not set yet	
			01		BTA-A	
			02		BTA-B	
		03		BTA-C		
14	P-ROM version display	The P-ROM version is displayed on the copy quantity display. The main code and the sub code are alternatively displayed by 2 digits. The display interval is same as that of the counter display. By pressing the fixed magnification ratio key, each version display is switched.				
		Display lamp (AB series)		Display lamp (Inch series)		
		141%		141%		
		115%		121%		
				Displayed version		
				Machine program		
				IMC program		
15	Trouble memory display	The trouble codes up to the latest one are acquired from the trouble memory data. Every time when the magnification ratio display is pressed, the main code of the trouble is displayed on the 1st ~ 2nd digit. * The latest 20 troubles are stored in the memory. The 3rd digit indicates the trouble history code, "A" ~ "J" (meaning of 1 ~ 10). After "J" is displayed, "A" ~ "J" blinks. (Meaning of 11 ~ 20) After "J" blinks (meaning of 20), "A" ~ "J" is lighted. (Returns to 1.) When the [START] key is pressed, the sub code is displayed. When the [Interrupt] key is pressed, the machine goes into the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated. * Note that when the history code blinks, the trouble code and the sub code do not blink.				
16	Duplex print counter display	Data is acquired from the duplex print counter variable, and is displayed. When the [Interrupt] key is pressed, the machine goes into the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.				
17	Copy counter display	The copy counter value is displayed. When the [Interrupt] key is pressed, the machine goes into the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.				
18	Printer counter display	The printer counter value is displayed. When the [Interrupt] key is pressed, the machine goes into the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.				
19	Scanner mode counter display	The scanner mode counter value is displayed. When the [Interrupt] key is pressed, the machine goes into the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.				
21	Scanner counter display	The scanner counter value is displayed. When the [Interrupt] key is pressed, the machine goes into the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.				
22	SPF jam counter display	The SPF jam counter value is displayed. When the [Interrupt] key is pressed, the machine goes into the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.				
24	01	Jam total counter clear	When the [START] key is pressed, the jam total count value is reset to zero, and zero is displayed.			
	02	Trouble memory clear	The trouble memory and the EEPROM trouble history data are cleared and "000" is displayed on the 7-seg display. When the [Interrupt] key is pressed, the machine goes into the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.			
	04	SPF counter clear	When the [START] key is pressed, the SPF count value is reset to zero and displayed on the 7-seg display. When the [Interrupt] key is pressed, the machine goes into the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.			
	05	Duplex print counter clear	The duplex print count data is cleared, and zero is displayed on the 7-seg display. When the [Interrupt] key is pressed, the machine goes into the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.			
	06	Paper feed counter clear	The paper feed counter data of each paper feed section is cleared, and "000" is displayed on the 7-seg display. When the [Interrupt] key is pressed, the machine goes into the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.			

Main code	Sub code	Contents	Details of operation																														
24	07	Drum counter clear	When the [START] key is pressed, the drum count and the drum roasting time are reset to zero, and the drum counter value is displayed on the 7-seg LED. When the [Interrupt] key is pressed, the machine goes into the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.																														
	08	Copy counter clear	When the [START] key is pressed, the copy count value is reset to zero and displayed on the 7-seg display. When the [Interrupt] key is pressed, the machine goes into the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.																														
	09	Printer counter clear	When the [START] key is pressed, the printer count value is reset to zero and displayed on the 7-seg display. When the [Interrupt] key is pressed, the machine goes into the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.																														
	13	Scanner counter clear	When the [START] key is pressed, the scanner count value is reset to zero and displayed on the 7-seg display. When the [Interrupt] key is pressed, the machine goes into the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.																														
	14	SPF jam total counter clear	When the [START] key is pressed, the SPF jam total count value is reset to zero and displayed on the 7-seg display. When the [Interrupt] key is pressed, the machine goes into the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.																														
	15	Scanner mode counter clear	When the [START] key is pressed, the scanner mode count value is reset to zero and displayed on the 7-seg display. When the [Interrupt] key is pressed, the machine goes into the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated.																														
25	01	Main motor operation check (Cooling fan motor rotation check)	When the [START] key is pressed, the main motor (together with the duplex motor for the duplex model) is driven for 30 sec. At that time, to save toner consumption, if the developing unit is installed, the developing bias, the main charger, and the grid are outputted. Since, in that case, laser discharge is required when the motor stops, the polygon motor is driven simultaneously. Check if the developing unit is installed or not. If it is not installed, the above high voltage is not outputted and only the motor is rotated. After completion of 30 sec operation, the machine goes into the sub code input standby mode. * This simulation must not be executed by forcibly turning on the door open/close switch.																														
	10	Polygon motor operation check	When the [START] key is pressed, the polygon motor is rotated for 30 sec. After completion of 30 sec operation, the machine goes into the sub code input standby mode.																														
26	02	Size setting	Used to set Enable/Disable of the FC (8.5" x 13") size detection. <table border="1"><thead><tr><th>Code number</th><th>Setting</th></tr></thead><tbody><tr><td>0</td><td>FC detection Disable * Default except for the following</td></tr><tr><td>1</td><td>FC detection Enable * Default only for SCA/Philippines</td></tr></tbody></table> Detection size when a document of the FC ((8.5" x 13") size is used <table border="1"><thead><tr><th rowspan="2"></th><th rowspan="2">Unit to be used</th><th rowspan="2">Destination</th><th rowspan="2">Document size</th><th colspan="2">Setting</th></tr><tr><th>0 (Disable)</th><th>1 (Enable)</th></tr></thead><tbody><tr><td rowspan="4">Document</td><td rowspan="4">SPF</td><td rowspan="2">EX Japan AB series (FC)</td><td>FC (8.5" x 13")</td><td>B4</td><td>FC (8.5" x 13")</td></tr><tr><td>B4</td><td>B4</td><td>FC (8.5" x 13")</td></tr><tr><td rowspan="2">Inch series (FC)</td><td>FC (8.5" x 13")</td><td>LG (8.5" x 14")</td><td>FC (8.5" x 13")</td></tr><tr><td>LG (8.5" x 14")</td><td>LG (8.5" x 14")</td><td>FC (8.5" x 13")</td></tr></tbody></table> *For the other destinations, this setting is disabled.	Code number	Setting	0	FC detection Disable * Default except for the following	1	FC detection Enable * Default only for SCA/Philippines		Unit to be used	Destination	Document size	Setting		0 (Disable)	1 (Enable)	Document	SPF	EX Japan AB series (FC)	FC (8.5" x 13")	B4	FC (8.5" x 13")	B4	B4	FC (8.5" x 13")	Inch series (FC)	FC (8.5" x 13")	LG (8.5" x 14")	FC (8.5" x 13")	LG (8.5" x 14")	LG (8.5" x 14")	FC (8.5" x 13")
Code number	Setting																																
0	FC detection Disable * Default except for the following																																
1	FC detection Enable * Default only for SCA/Philippines																																
	Unit to be used	Destination	Document size	Setting																													
				0 (Disable)	1 (Enable)																												
Document	SPF	EX Japan AB series (FC)	FC (8.5" x 13")	B4	FC (8.5" x 13")																												
			B4	B4	FC (8.5" x 13")																												
		Inch series (FC)	FC (8.5" x 13")	LG (8.5" x 14")	FC (8.5" x 13")																												
			LG (8.5" x 14")	LG (8.5" x 14")	FC (8.5" x 13")																												
03	Auditor setting	Used to set the auditor. <table border="1"><thead><tr><th>Code number</th><th>Mode</th></tr></thead><tbody><tr><td>0</td><td>Built-in auditor mode</td></tr><tr><td>1</td><td>Coin vendor mode</td></tr><tr><td>2</td><td>Other</td></tr></tbody></table> * When the coin vendor mode is selected, if the auditor setup is ON and the standard tray is manual feed tray, the standard tray setup must be changed to the main cassette.	Code number	Mode	0	Built-in auditor mode	1	Coin vendor mode	2	Other																							
Code number	Mode																																
0	Built-in auditor mode																																
1	Coin vendor mode																																
2	Other																																
04	Copier duplex setting	When this simulation is executed, the current set duplex code number is displayed. Enter the desired code number of duplex setting and press the [START] key, and the entered code number is set. <table border="1"><thead><tr><th>Code number</th><th>Mode</th></tr></thead><tbody><tr><td>0</td><td>Without duplex</td></tr><tr><td>1</td><td>With duplex</td></tr></tbody></table> * When this simulation is executed, the binding margin setup is automatically set to the default (left side).	Code number	Mode	0	Without duplex	1	With duplex																									
Code number	Mode																																
0	Without duplex																																
1	With duplex																																

Main code	Sub code	Contents	Details of operation																
26	05	Count mode setting	<p>When any key input is made, it is displayed on the display section. When the [START] key is pressed, the set code data are acquired and stored to the count mode set variable and in the EEPROM, and the machine goes into the sub code input standby mode. However, if the [START] key is pressed outside the set range, it is not assured. At that time, when the [Interrupt] key is pressed, the data are not rewritten and the machine goes into the sub code input standby mode. When the [CA] key is pressed, the simulation is terminated without rewriting the data.</p> <p>[*1 : Total counter / Developer counter    *2 : maintenance counter]</p> <table><tr><td>0:</td><td>*1= Double count</td><td>*2= Double count</td></tr><tr><td>1:</td><td>*1= Single count</td><td>*2 = Double count</td></tr><tr><td>2:</td><td>*1= Double count</td><td>*2= Single count</td></tr><tr><td>3:</td><td>*1= Single count</td><td>*2= Single count</td></tr></table>	0:	*1= Double count	*2= Double count	1:	*1= Single count	*2 = Double count	2:	*1= Double count	*2= Single count	3:	*1= Single count	*2= Single count				
0:	*1= Double count	*2= Double count																	
1:	*1= Single count	*2 = Double count																	
2:	*1= Double count	*2= Single count																	
3:	*1= Single count	*2= Single count																	
	06	Destination setting	<p>When this simulation is executed, the current set destination code number is displayed. Enter the desired code number of the destination and press the [START] key to set the destination.</p> <table><tr><th>Code number</th><th>Destination</th></tr><tr><td>0</td><td>Japan AB series</td></tr><tr><td>1</td><td>Inch series</td></tr><tr><td>2</td><td>EX Japan AB series</td></tr><tr><td>3</td><td>EX Japan inch series</td></tr><tr><td>4</td><td>EX Japan AB series (FC)</td></tr><tr><td>5</td><td>China (EX Japan AB series + China paper support)</td></tr><tr><td>6</td><td>Taiwan (EX Japan AB series + China paper support)</td></tr></table> <p>If this setting is changed, SIM46-19 setting is also changed accordingly. (The paper size is also changed: AB series is changed to A4, and Inch series to Letter. The AE limit setup is set to the default. When the destination is changed (from Japan to EX Japan or from EX Japan to Japan), the maintenance cycle is also set to the default accordingly.)</p>	Code number	Destination	0	Japan AB series	1	Inch series	2	EX Japan AB series	3	EX Japan inch series	4	EX Japan AB series (FC)	5	China (EX Japan AB series + China paper support)	6	Taiwan (EX Japan AB series + China paper support)
Code number	Destination																		
0	Japan AB series																		
1	Inch series																		
2	EX Japan AB series																		
3	EX Japan inch series																		
4	EX Japan AB series (FC)																		
5	China (EX Japan AB series + China paper support)																		
6	Taiwan (EX Japan AB series + China paper support)																		
	07	Machine condition check (CPM)	<p>When this simulation is executed, the current setting of the machine is displayed.</p> <table><tr><th>7-seg display</th><th>Meaning (CPM information)</th></tr><tr><td>15</td><td>15CPM</td></tr><tr><td>16</td><td>16CPM</td></tr><tr><td>20</td><td>20CPM</td></tr></table>	7-seg display	Meaning (CPM information)	15	15CPM	16	16CPM	20	20CPM								
7-seg display	Meaning (CPM information)																		
15	15CPM																		
16	16CPM																		
20	20CPM																		
	18	Toner save mode setting	<p>Used to set ON/OFF of the toner save mode.</p> <table><tr><th>Code number</th><th>Setting</th></tr><tr><td>0</td><td>Toner save OFF</td></tr><tr><td>1</td><td>Toner save ON</td></tr></table> <p>* The toner save mode of the user program is also changed accordingly.</p>	Code number	Setting	0	Toner save OFF	1	Toner save ON										
Code number	Setting																		
0	Toner save OFF																		
1	Toner save ON																		
	30	CE mark conformity control ON/OFF	<p>When this simulation is executed, the current set code number of CE mark conformity is displayed. Enter the desired code number of CE mark conformity and press the [START] key to set the code number.</p> <table><tr><th>Code number</th><th>Setting</th></tr><tr><td>0</td><td>CE mark conformity control OFF    *Default for 100V system</td></tr><tr><td>1</td><td>CE mark conformity control ON</td></tr></table>	Code number	Setting	0	CE mark conformity control OFF    *Default for 100V system	1	CE mark conformity control ON										
Code number	Setting																		
0	CE mark conformity control OFF    *Default for 100V system																		
1	CE mark conformity control ON																		
	31	Auditor mode exclusive setup	<p>Used to set whether the manual fed tray can be used or not when the auditor mode is set to the coin vendor mode.</p> <table><tr><th>Code number</th><th>Setting</th></tr><tr><td>0</td><td>Exclusive setup OFF (Manual paper feed allowed)</td></tr><tr><td>1</td><td>Exclusive setup ON (Manual paper fed inhibited)</td></tr></table> <p>* When this is set to "Exclusive setup ON," if the auditor is set to the coin vendor mode and the standard tray is set to the manual feed tray, the standard tray must be set to the main cassette.</p>	Code number	Setting	0	Exclusive setup OFF (Manual paper feed allowed)	1	Exclusive setup ON (Manual paper fed inhibited)										
Code number	Setting																		
0	Exclusive setup OFF (Manual paper feed allowed)																		
1	Exclusive setup ON (Manual paper fed inhibited)																		
	36	Cancel of stop at maintenance life over	<p>Used to set stop at maintenance life over.</p> <table><tr><th>Code number</th><th>Setting</th></tr><tr><td>0</td><td>Stop at maintenance life over</td></tr><tr><td>1</td><td>Cancel of stop at maintenance life over * Default</td></tr></table>	Code number	Setting	0	Stop at maintenance life over	1	Cancel of stop at maintenance life over * Default										
Code number	Setting																		
0	Stop at maintenance life over																		
1	Cancel of stop at maintenance life over * Default																		
	37	Cancel of stop at developer life over	<p>When this simulation is executed, the current set code number is displayed. Enter the desired code number and press the [START] key to set the code number. The machine goes into the sub code input state.</p> <table><tr><th>Code number</th><th>Setting</th></tr><tr><td>0</td><td>Stop at developer life over</td></tr><tr><td>1</td><td>Cancel of stop at developer life over</td></tr></table>	Code number	Setting	0	Stop at developer life over	1	Cancel of stop at developer life over										
Code number	Setting																		
0	Stop at developer life over																		
1	Cancel of stop at developer life over																		



Main code	Sub code	Contents	Details of operation																								
26	38	Cancel of stop at drum life over	When this simulation is executed, the current set code number is displayed. Enter the desired code number and press the [START] key to set the code number.																								
			<table><tr><th>Code number</th><th>Setting</th></tr><tr><td>0</td><td>Stop at drum life over</td></tr><tr><td>1</td><td>Cancel of stop at drum life over</td></tr></table>	Code number	Setting	0	Stop at drum life over	1	Cancel of stop at drum life over																		
			Code number	Setting																							
	0	Stop at drum life over																									
1	Cancel of stop at drum life over																										
	39	Memory capacity check	When this simulation is executed, the current memory capacity is displayed.																								
			<table><tr><th>7-seg display</th><th>Meaning (Memory capacity)</th></tr><tr><td>16</td><td>16MByte</td></tr><tr><td>32</td><td>32MByte</td></tr></table>	7-seg display	Meaning (Memory capacity)	16	16MByte	32	32MByte																		
7-seg display	Meaning (Memory capacity)																										
16	16MByte																										
32	32MByte																										
42	Transfer ON/OFF timing control setting		When this simulation is executed, the current setting value of transfer ON timing is displayed. Enter a set value and press the [START] key to set the entered value, and the machine will go into the sub code input standby mode.																								
			When the [Mode select] key is pressed, the ON timing setting and the OFF timing setting are alternatively selected. At that time, the setting is saved and written into the EEPROM.																								
			<table><tr><th>Display lamp</th><th>Setting mode</th><th>Default</th></tr><tr><td>AE mode lamp</td><td>Transfer ON timing</td><td>50</td></tr><tr><td>TEXT mode lamp</td><td>Transfer OFF timing</td><td>50</td></tr></table>	Display lamp	Setting mode	Default	AE mode lamp	Transfer ON timing	50	TEXT mode lamp	Transfer OFF timing	50															
			Display lamp	Setting mode	Default																						
AE mode lamp	Transfer ON timing	50																									
TEXT mode lamp	Transfer OFF timing	50																									
•Setting range: 1 ~ 99 When the setting value is increased by 1, time is increased by 2ms. •The default, 50, of transfer ON timing means "344ms passed from PS release." The default, 50, of transfer OFF timing means "304ms passed from P-IN OFF."																											
43	Side void amount setting		Used to set the side void amount on the both sides.																								
			Enter a set value with the 10-key and press the [START] key, and the entered value will be saved and the machine will go into the sub code input standby mode.																								
			The setting range is 0 ~ 10. When the set value is increased by 1, the void amount is increased by 0.5mm. The default is 3 (= 1.5mm).																								
			To select the setting mode, press the [Exposure mode select] key. The set value of the selected mode is displayed on the copy quantity display. At that time, the set value is also saved.																								
			<table><tr><th>Display lamp</th><th>Setting mode</th></tr><tr><td>AE mode lamp</td><td>Side void amount (Right)</td></tr><tr><td>TEXT mode lamp</td><td>Side void amount (Left)</td></tr></table>	Display lamp	Setting mode	AE mode lamp	Side void amount (Right)	TEXT mode lamp	Side void amount (Left)																		
Display lamp	Setting mode																										
AE mode lamp	Side void amount (Right)																										
TEXT mode lamp	Side void amount (Left)																										
			* When the setting value is increased by 1, time is increased by 0.5ms.																								
51	Copy temporary stop function setting		When any key is pressed, it is displayed on the display section. When the [START] key is pressed, the set code data is acquired and stored to the setting variable of sort/group copy temporary stop function and to the EEPROM. The machine goes into the sub code input standby mode.																								
			<table><tr><th>Code number</th><th>Setting</th></tr><tr><td>0</td><td>Not stop</td></tr><tr><td>1</td><td>Stop</td></tr></table>	Code number	Setting	0	Not stop	1	Stop																		
			Code number	Setting																							
			0	Not stop																							
1	Stop																										
			When the [Interrupt] key is pressed at that time, the machine goes into the sub code input standby mode without rewriting the data. When the [CA] key is pressed, the simulation mode is terminated without rewriting the data.																								
			* When this is set to "Stop," temporary stop is made for every 250 copies in one copy job.																								
30	01	Paper sensor status display	The paper sensor status is displayed with the lamps on the operation panel.																								
			* When each sensor detects paper, the corresponding lamp turns on.																								
			<table><tr><th>Display lamp</th><th>Sensor name</th></tr><tr><td>Developer lamp</td><td>Paper exit sensor</td></tr><tr><td>Machine jam lamp</td><td>Duplex sensor</td></tr><tr><td>Toner lamp</td><td>Paper entry sensor</td></tr><tr><td>Manual paper feed lamp</td><td>Manual feed paper empty sensor</td></tr><tr><td>No. 1 cassette lamp</td><td>No. 1 tray paper empty sensor</td></tr><tr><td>No. 2 cassette lamp</td><td>No. 2 tray paper empty sensor</td></tr><tr><td>No. 3 cassette lamp</td><td>No. 3 tray paper empty sensor</td></tr><tr><td>No. 4 cassette lamp</td><td>No. 4 tray paper empty sensor</td></tr><tr><td>Tray jam lamp 1</td><td>No. 2 tray paper feed sensor</td></tr><tr><td>Tray jam lamp 2</td><td>No. 3 tray paper feed sensor</td></tr><tr><td>Paper empty lamp</td><td>No. 4 tray paper feed sensor</td></tr></table>	Display lamp	Sensor name	Developer lamp	Paper exit sensor	Machine jam lamp	Duplex sensor	Toner lamp	Paper entry sensor	Manual paper feed lamp	Manual feed paper empty sensor	No. 1 cassette lamp	No. 1 tray paper empty sensor	No. 2 cassette lamp	No. 2 tray paper empty sensor	No. 3 cassette lamp	No. 3 tray paper empty sensor	No. 4 cassette lamp	No. 4 tray paper empty sensor	Tray jam lamp 1	No. 2 tray paper feed sensor	Tray jam lamp 2	No. 3 tray paper feed sensor	Paper empty lamp	No. 4 tray paper feed sensor
			Display lamp	Sensor name																							
Developer lamp	Paper exit sensor																										
Machine jam lamp	Duplex sensor																										
Toner lamp	Paper entry sensor																										
Manual paper feed lamp	Manual feed paper empty sensor																										
No. 1 cassette lamp	No. 1 tray paper empty sensor																										
No. 2 cassette lamp	No. 2 tray paper empty sensor																										
No. 3 cassette lamp	No. 3 tray paper empty sensor																										
No. 4 cassette lamp	No. 4 tray paper empty sensor																										
Tray jam lamp 1	No. 2 tray paper feed sensor																										
Tray jam lamp 2	No. 3 tray paper feed sensor																										
Paper empty lamp	No. 4 tray paper feed sensor																										
42	01	Developing counter clear	The developer counter data in the EEPROM is cleared and 0 is displayed on the 7-seg display.																								
			When the [Interrupt] key is pressed at that time, the machine goes into the sub code input standby mode. When the [CA] key is pressed, the simulation mode is terminated.																								

Main code	Sub code	Contents	Details of operation												
43	01	Fusing temperature setting (During normal copy)	<p>When the simulation is terminated, the current set value is displayed. When the [%] key is pressed, the setting is changed. When the [START] key is pressed, the set content is written into the EEPROM and the machine goes into the sub code input standby mode.</p> <table><tr><th>Set temperature (°C)</th><th>Set temperature (°C)</th></tr><tr><td>160</td><td>185</td></tr><tr><td>165</td><td>190</td></tr><tr><td>170 * Default</td><td>195</td></tr><tr><td>175</td><td>200</td></tr><tr><td>180</td><td></td></tr></table>	Set temperature (°C)	Set temperature (°C)	160	185	165	190	170 * Default	195	175	200	180	
	Set temperature (°C)	Set temperature (°C)													
	160	185													
	165	190													
170 * Default	195														
175	200														
180															
10	Postcard paper feed cycle setting	Used to set the paper feed cycle timing in postcard printing. (Pickup interval)[1] ~ [99] (Center [50], Unit: 100msec)(Example: When 50, pickup interval = 100msec x 50)													
11	Postcard size paper fusing temperature setting	<p>When this simulation is executed, the current set value is displayed. When the [%] key is pressed, the setting is changed. When the [START] key is pressed, the set content is written into the EEPROM and the machine goes into the sub code input standby mode.</p> <table><tr><th>Set temperature (°C)</th><th>Set temperature (°C)</th></tr><tr><td>160</td><td>185</td></tr><tr><td>165</td><td>190</td></tr><tr><td>170</td><td>195 * Default</td></tr><tr><td>175</td><td>200</td></tr><tr><td>180</td><td></td></tr></table>	Set temperature (°C)	Set temperature (°C)	160	185	165	190	170	195 * Default	175	200	180		
Set temperature (°C)	Set temperature (°C)														
160	185														
165	190														
170	195 * Default														
175	200														
180															
12	Standby mode fusing fan rotation setting	<p>When this simulation is executed, the current set code number is displayed. Enter the desired code number and press the [START] key to set the code number.</p> <table><tr><th>Code number</th><th>Setting</th></tr><tr><td>0</td><td>Low speed rotation *Default</td></tr><tr><td>1</td><td>High speed rotation</td></tr></table>	Code number	Setting	0	Low speed rotation *Default	1	High speed rotation							
Code number	Setting														
0	Low speed rotation *Default														
1	High speed rotation														
13	Fusing paper interval control allow/inhibit setting	<p>Used to set the paper feed timing of 21st and later page to A3 or WLT when multi copying or printing paper of narrow width. (A3 or WLT depends on the destination.)</p> <p>When this simulation is executed, the currently set code number is displayed. Enter a desired code number and press the [START] key, and the entered code number is written into the EEPROM and the machine goes into the sub code entry standby mode.</p> <table><tr><th>Code number</th><th>Setting</th></tr><tr><td>0</td><td>Inhibit * Default</td></tr><tr><td>1</td><td>Allow</td></tr></table> <p><b>&lt;Applicable paper&gt;</b></p> <p>1) Cassette paper feed: A4R, B5R, 8-1/2" X 14", 8-1/2" X 13", 8-1/2" X 11", A5, INV</p> <p>2) Manual paper feed: A4R, B5R, 8-1/2" X 14", 8-1/2" X 13", 8-1/2" X 11", A5, INV,16KR</p> <p>* A5 size for manual paper feed is valid only for EX Japan AB series.</p>	Code number	Setting	0	Inhibit * Default	1	Allow							
Code number	Setting														
0	Inhibit * Default														
1	Allow														
44	34	Transfer current setting	<p>Used to set the transfer current for the front surface and that for the back surface. When this simulation is executed, the current set value is displayed on the 7-seg display. Select the set value with the zoom (Up/Down) keys and press the [START] key, and the set content is written into the EEPROM and the machine goes into the sub code input standby mode. Press the [Mode select] key to select each setting mode. At that time, the setup content is written into the EEPROM.</p> <p>The set range is 90uA ~ 360uA in the increment of 10uA.</p> <table><tr><th>Display lamp</th><th>Setting mode</th></tr><tr><td>AE mode lamp</td><td>Normal size width: Front</td></tr><tr><td>TEXT mode lamp</td><td>Normal size width: Back</td></tr><tr><td>AE mode lamp &amp; PHOTO mode lamp</td><td>Small size width: Front</td></tr><tr><td>TEXT mode lamp &amp; PHOTO mode lamp</td><td>Small size width: Back</td></tr><tr><td>AE &amp; TEXT &amp; PHOTO mode lamps</td><td>Manual paper feed</td></tr></table> <p>* Small size paper must be Letter R (A4R) or smaller.</p> <p>* For the special size of tray, use the normal size width.</p>	Display lamp	Setting mode	AE mode lamp	Normal size width: Front	TEXT mode lamp	Normal size width: Back	AE mode lamp & PHOTO mode lamp	Small size width: Front	TEXT mode lamp & PHOTO mode lamp	Small size width: Back	AE & TEXT & PHOTO mode lamps	Manual paper feed
	Display lamp	Setting mode													
AE mode lamp	Normal size width: Front														
TEXT mode lamp	Normal size width: Back														
AE mode lamp & PHOTO mode lamp	Small size width: Front														
TEXT mode lamp & PHOTO mode lamp	Small size width: Back														
AE & TEXT & PHOTO mode lamps	Manual paper feed														
	40	Setting of rotation time before toner supply	Used to set the time interval between start of rotation (ready) of the main motor and start of toner supply in previous rotation after supplying the power. [1] ~ [99] (Default [8], unit: sec)												

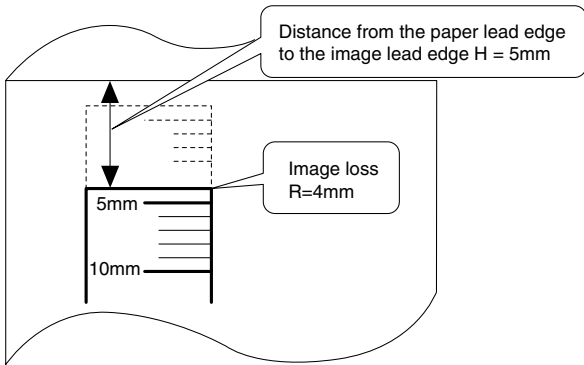
Main code	Sub code	Contents	Details of operation												
46	01	Copy density adjustment (300dpi)	Used to set the copy density for each mode. <b>(Operating procedure)</b> When this simulation is executed, warm-up and shading are operated, and the current set value is displayed in two digits. (Default [50]) * The density LED is not lighted. Change the set value and press the [START] key, and a copy is made according to the set value. The greater the set value is, the darker the density is, and vise versa. In this case, only a copy at Exp. 3 can be made. When, however, the density is set darker, Exp.1 and Exp. 5 become darker, too. If the dentistry is set lighter, Exp. 1 and Exp. 5 become lighter, too. To select a desired copy mode, press the [Copy mode select] key. The selected copy mode set value is displayed on the copy quantity display. (Adjustment range: 1 ~ 99)												
			<table><tr><th>Display lamp</th><th>Copy mode</th></tr><tr><td>AE mode lamp</td><td>AE mode (300dpi)</td></tr><tr><td>TEXT mode lamp</td><td>TEXT mode (300dpi)</td></tr><tr><td>PHOTO mode lamp</td><td>PHOTO mode</td></tr><tr><td>TEXT mode lamp &amp; PHOTO mode lamp</td><td>TS mode (TEXT) (300dpi)</td></tr><tr><td>AE mode lamp &amp; PHOTO mode lamp</td><td>TS mode (AE) (300dpi)</td></tr></table>	Display lamp	Copy mode	AE mode lamp	AE mode (300dpi)	TEXT mode lamp	TEXT mode (300dpi)	PHOTO mode lamp	PHOTO mode	TEXT mode lamp & PHOTO mode lamp	TS mode (TEXT) (300dpi)	AE mode lamp & PHOTO mode lamp	TS mode (AE) (300dpi)
			Display lamp	Copy mode											
AE mode lamp	AE mode (300dpi)														
TEXT mode lamp	TEXT mode (300dpi)														
PHOTO mode lamp	PHOTO mode														
TEXT mode lamp & PHOTO mode lamp	TS mode (TEXT) (300dpi)														
AE mode lamp & PHOTO mode lamp	TS mode (AE) (300dpi)														
	02	Copy density adjustment (600dpi)	Used to set the copy density for each mode. <b>(Operating procedure)</b> When this simulation is executed, warm-up and shading are operated, and the current set value is displayed in two digits. (Default [50])Change the set value and press the [START] key, and a copy is made according to the set value. The greater the set value is, the darker the density is, and vise versa. In this case, only a copy at Exp. 3 can be made. When, however, the density is set darker, Exp.1 and Exp. 5 become darker, too. If the dentistry is set lighter, Exp. 1 and Exp. 5 become lighter, too. To select a desired copy mode, press the [Copy mode select] key. The selected copy mode set value is displayed on the copy quantity display. (Adjustment range: 1 ~ 99)												
			<table><tr><th>Display lamp</th><th>Copy mode</th></tr><tr><td>AE mode lamp</td><td>AE mode (600dpi)</td></tr><tr><td>TEXT mode lamp</td><td>TEXT mode (600dpi)</td></tr><tr><td>PHOTO mode lamp</td><td>PHOTO mode</td></tr><tr><td>TEXT mode lamp &amp; PHOTO mode lamp</td><td>TS mode (TEXT) (600dpi)</td></tr><tr><td>AE mode lamp &amp; PHOTO mode lamp</td><td>TS mode (AE) (600dpi)</td></tr></table>	Display lamp	Copy mode	AE mode lamp	AE mode (600dpi)	TEXT mode lamp	TEXT mode (600dpi)	PHOTO mode lamp	PHOTO mode	TEXT mode lamp & PHOTO mode lamp	TS mode (TEXT) (600dpi)	AE mode lamp & PHOTO mode lamp	TS mode (AE) (600dpi)
			Display lamp	Copy mode											
AE mode lamp	AE mode (600dpi)														
TEXT mode lamp	TEXT mode (600dpi)														
PHOTO mode lamp	PHOTO mode														
TEXT mode lamp & PHOTO mode lamp	TS mode (TEXT) (600dpi)														
AE mode lamp & PHOTO mode lamp	TS mode (AE) (600dpi)														
	09	Copy exposure level adjustment, individual setting (Text) 300dpi	Used to adjust the shift amount and the inclination value for each density level (1 ~ 5) when the exposure mode is the TEXT mode (including TS) •The shift amount is the same as the gamma (gradation), and is used to set the overall brightness. When the shift amount is increased, the overall brightness is decreased. When the shift amount is decreased, the overall brightness is increased •The inclination value changes the gamma (gradation). When the set value is increased, the gamma is increased to increase the contrast. (Clearer black and white images) When the set value is decreased, the gamma is decreased to decrease the contrast. (Increased gradation) * Press the [%] key to switch between the shift amount and the inclination value. The 7-seg display shows the mode. The initial display is "Shift." Shift is indicated as "b" (Brightness). Inclination is indicated as "c" (Contrast). <b>(Example)</b> [b50] → [%T] key → [c50] → [%] key → [b50] → [%] key → [c50] → ... * Select the adjustment level with the [Density adjust] key. The density LED displays the selected level (Exp. 1 ~ Exp. 5) * Select TEXT or TEXT (TS) with the [Mode select] key.												
			<table><tr><th>Mode lamp</th><th>Exposure mode to be adjusted</th></tr><tr><td>TEXT mode lamp</td><td>TEXT mode</td></tr><tr><td>TEXT mode lamp &amp; PHOT mode lamp</td><td>TEXT (TS) mode</td></tr></table>	Mode lamp	Exposure mode to be adjusted	TEXT mode lamp	TEXT mode	TEXT mode lamp & PHOT mode lamp	TEXT (TS) mode						
			Mode lamp	Exposure mode to be adjusted											
TEXT mode lamp	TEXT mode														
TEXT mode lamp & PHOT mode lamp	TEXT (TS) mode														
			<p>* Change the shift amount and the inclination value with the 10-key.</p> <p>The set range is [1] ~ [99]. The default is [50].</p> <p>Change the set value and press the [START] key, and a copy is made at the set value.</p>												

Main code	Sub code	Contents	Details of operation						
46	10	Copy exposure level adjustment, individual setting (Text) 600dpi	<p>Used to adjust the shift amount and the inclination value for each density level (1 ~ 5) when the exposure mode is the TEXT mode (including TS)</p> <ul style="list-style-type: none"><li>•The shift amount is the same as the gamma (gradation), and is used to set the overall brightness. When the shift amount is increased, the overall brightness is decreased. When the shift amount is decreased, the overall brightness is increased</li><li>•The inclination value changes the gamma (gradation). When the set value is increased, the gamma is increased to increase the contrast. (Clearer black and white images) When the set value is decreased, the gamma is decreased to decrease the contrast. (Increased gradation)</li></ul> <p>* Press the [%] key to switch between the shift amount and the inclination value.</p> <p>The 7-seg display shows the mode.</p> <p>The initial display is "Shift."</p> <p>Shift is indicated as "b" (Brightness).</p> <p>Inclination is indicated as "c" (Contrast).</p> <p><b>(Example)</b></p> <p>[b50] → [%T] key → [c50] → [%] key → [b50] → [%] key → [c50] → ...</p> <p>* Select the adjustment level with the [Density adjust] key.</p> <p>The density LED displays the selected level (Exp. 1 ~ Exp. 5)</p> <p>* Select TEXT or TEXT (TS) with the [Mode select] key.</p> <table><tr><th>Mode lamp</th><th>Exposure mode to be adjusted</th></tr><tr><td>TEXT mode lamp</td><td>TEXT mode</td></tr><tr><td>TEXT mode lamp &amp; PHOT mode lamp</td><td>TEXT (TS) mode</td></tr></table> <p>* Change the shift amount and the inclination value with the 10-key.</p> <p>The set range is [1] ~ [99]. The default is [50].</p> <p>Change the set value and press the [START] key, and a copy is made at the set value.</p>	Mode lamp	Exposure mode to be adjusted	TEXT mode lamp	TEXT mode	TEXT mode lamp & PHOT mode lamp	TEXT (TS) mode
	Mode lamp	Exposure mode to be adjusted							
TEXT mode lamp	TEXT mode								
TEXT mode lamp & PHOT mode lamp	TEXT (TS) mode								
11	Copy exposure level adjustment, individual setting (Photo) 600dpi	<p>Used to adjust the shift amount and the inclination value for each density level (1 ~ 5) when the exposure mode is the PHOTO mode</p> <ul style="list-style-type: none"><li>•The shift amount is the same as the gamma (gradation), and is used to set the overall brightness. When the shift amount is increased, the overall brightness is decreased. When the shift amount is decreased, the overall brightness is increased</li><li>•The inclination value changes the gamma (gradation). When the set value is increased, the gamma is increased to increase the contrast. (Clearer black and white images) When the set value is decreased, the gamma is decreased to decrease the contrast. (Increased gradation)</li></ul> <p>* Press the [%] key to switch between the shift amount and the inclination value.</p> <p>The 7-seg display shows the mode.</p> <p>The initial display is "Shift."</p> <p>Shift is indicated as "b" (Brightness).</p> <p>Inclination is indicated as "c" (Contrast).</p> <p><b>(Example)</b></p> <p>[b50] → [%T] key → [c50] → [%] key → [b50] → [%] key → [c50] → ...</p> <p>* Select the adjustment level with the [Density adjust] key.</p> <p>The density LED displays the selected level (Exp. 1 ~ Exp. 5)</p> <p>* The [Mode select] key is invalid, and the PHOTO lamp lights up.</p> <p>* Change the shift amount and the inclination value with the 10-key.</p> <p>The set range is [1] ~ [99]. The default is [50].</p> <p>Change the set value and press the [START] key, and a copy is made at the set value.</p>							

Main code	Sub code	Contents	Details of operation																		
46	18	Image contrast adjustment (300dpi)	<p>Used to adjust the contrast for each mode.</p> <p><b>(Operating procedure)</b></p> <p>When this simulation is executed, warm-up and shading are performed, and the current set value is displayed in two digits. (Default: 50)</p> <p>* The density LED is not lighted.</p> <p>Change the set value and press the [START] key, and a copy is made according to the set value. The greater the set value is, the higher the contrast is.</p> <p>The smaller the set value is, the lower the contrast is.</p> <p>In this case, only a copy at Exp. 3 is made.</p> <p>However, the contrasts at Exp.1 and Exp. 5 are also changed accordingly.</p> <p>To select a desired copy mode, press the [Copy mode select] key.</p> <p>The selected copy mode set value is displayed on the copy quantity display.</p> <p>(Adjustment range: 1 ~ 99)</p> <table><tr><th>Display lamp</th><th>Copy mode</th></tr><tr><td>AE mode lamp</td><td>AE mode (300dpi)</td></tr><tr><td>TEXT mode lamp</td><td>TEXT mode (300dpi)</td></tr><tr><td>PHOTO mode lamp</td><td>PHOTO mode</td></tr><tr><td>TEXT mode lamp &amp; PHOTO mode lamp</td><td>TS mode (TEXT) (300dpi)</td></tr><tr><td>AE mode lamp &amp; PHOTO mode lamp</td><td>TS mode (AE) (300dpi)</td></tr></table>	Display lamp	Copy mode	AE mode lamp	AE mode (300dpi)	TEXT mode lamp	TEXT mode (300dpi)	PHOTO mode lamp	PHOTO mode	TEXT mode lamp & PHOTO mode lamp	TS mode (TEXT) (300dpi)	AE mode lamp & PHOTO mode lamp	TS mode (AE) (300dpi)						
Display lamp	Copy mode																				
AE mode lamp	AE mode (300dpi)																				
TEXT mode lamp	TEXT mode (300dpi)																				
PHOTO mode lamp	PHOTO mode																				
TEXT mode lamp & PHOTO mode lamp	TS mode (TEXT) (300dpi)																				
AE mode lamp & PHOTO mode lamp	TS mode (AE) (300dpi)																				
	19	Exposure mode setting (Gamma table setting / AE operation mode setting / PHOTO image process setting)	<p>Used set for the following three exposure mode. Enter a code number and press the [START] key, and the entered number is written into the EEPROM and the machine goes into the sub code entry standby mode. (When the [Copy mode select] key is pressed, the number is written into the EEPROM and the set item is changed.)</p> <p><b>&lt;&lt;Gamma table setting&gt;&gt;</b></p> <p>When this simulation is executed, the current set code number of gamma table is displayed. (Default: Japan -1. EX Japan -2)</p> <p>* When setting the gamma table, no "Mode lamps" are lighted.</p> <table><tr><th>Code number</th><th>Setting (Gamma table)</th></tr><tr><td>1</td><td>Image quality priority mode * Default for Japan models</td></tr><tr><td>2</td><td>Toner consumption priority mode * Default for EX Japan models</td></tr></table> <p>* If this setting is changed, the set content of SIM46-30 is reset to the default.</p> <p><b>&lt;&lt;AE mode&gt;&gt;</b></p> <p>When the [Copy mode select] key is pressed in gamma table setting, the mode is changed to the AE operation mode setting and the current set code number of the AE operation mode is displayed. (Default: 0)</p> <p>* When setting the AE operation mode, the "AE mode lamp" is lighted.</p> <table><tr><th>Code number</th><th>Setting (AE operation mode)</th></tr><tr><td>0</td><td>Lead edge stop * Default</td></tr><tr><td>1</td><td>Rear time process</td></tr></table> <p><b>&lt;Photo image process setting&gt;</b></p> <p>When the [Copy mode select] key is pressed during the AE operation mode setting, the setting mode is changed to the photo image process setting and the currently set code number of the photo image process setting is displayed.</p> <p>* When in the photo image process setting, the [Photo mode lamp] is lighted.</p> <table><tr><th>Code number</th><th>Setting (Photo image process setting)</th></tr><tr><td>1</td><td>Error diffusion process</td></tr><tr><td>2</td><td>Dither process * Default</td></tr></table> <p>* When this setting is changed, SIM 46-1/2/18/29 and SIM 46-31 Photo items are reset to the default. (SIM 46-11 is also linked.)</p>	Code number	Setting (Gamma table)	1	Image quality priority mode * Default for Japan models	2	Toner consumption priority mode * Default for EX Japan models	Code number	Setting (AE operation mode)	0	Lead edge stop * Default	1	Rear time process	Code number	Setting (Photo image process setting)	1	Error diffusion process	2	Dither process * Default
Code number	Setting (Gamma table)																				
1	Image quality priority mode * Default for Japan models																				
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Code number	Setting (Photo image process setting)																				
1	Error diffusion process																				
2	Dither process * Default																				

Main code	Sub code	Contents	Details of operation																				
46	20	SPF exposure correction	<p>Used to adjust the exposure correction amount in the SPF mode (for the OC mode).</p> <p><b>(Operating procedure)</b></p> <p>When this simulation is executed, the current set value is displayed.</p> <p>Enter the adjustment value with the 10-key and press the [START] key.</p> <p>The entered set value is stored and a copy is made.</p> <p>When the [INTERRUPT] key is pressed, the entered value is saved and the machine goes into the sub code entry standby mode. When the [CA] key is pressed, the entered value is saved and the simulation is terminated. [1] ~ [99] (Center [50])</p> <ul style="list-style-type: none"><li>* The greater the set value is, the darker the density is. The smaller the set value is, the lighter the density is.</li><li>* The exposure mode is TEXT fixed. The LED does not change, either.</li></ul> <p>The exposure level can not be adjusted.</p>																				
	29	Image contrast adjustment (600dpi)	<p>Used to adjust the contrast for each mode.</p> <p><b>(Operating procedure)</b></p> <p>When this simulation is executed, warm-up and shading are performed, and the current set value is displayed in two digits. (Default: 50)</p> <p>The density LED is not lighted.</p> <p>Change the set value and press the [START] key, and a copy is made according to the set value.</p> <p>The greater the set value is, the higher the contrast is.</p> <p>The smaller the set value is, the lower the contrast is.</p> <p>In this case, only a copy at Exp. 3 is made.</p> <p>However, the contrasts at Exp.1 and Exp. 5 are also changed accordingly.</p> <p>To select a desired copy mode, press the [Copy mode select] key.</p> <p>The selected copy mode set value is displayed on the copy quantity display.</p> <p>(Adjustment range: 1 ~ 99)</p> <table><tr><th>Display lamp</th><th>Copy mode</th></tr><tr><td>AE mode lamp</td><td>AE mode (600dpi)</td></tr><tr><td>TEXT mode lamp</td><td>TEXT mode (600dpi)</td></tr><tr><td>PHOTO mode lamp</td><td>PHOTO mode</td></tr><tr><td>TEXT mode lamp &amp; PHOTO mode lamp</td><td>TS mode (TEXT) (600dpi)</td></tr><tr><td>AE mode lamp &amp; PHOTO mode lamp</td><td>TS mode (AE) (600dpi)</td></tr></table>	Display lamp	Copy mode	AE mode lamp	AE mode (600dpi)	TEXT mode lamp	TEXT mode (600dpi)	PHOTO mode lamp	PHOTO mode	TEXT mode lamp & PHOTO mode lamp	TS mode (TEXT) (600dpi)	AE mode lamp & PHOTO mode lamp	TS mode (AE) (600dpi)								
Display lamp	Copy mode																						
AE mode lamp	AE mode (600dpi)																						
TEXT mode lamp	TEXT mode (600dpi)																						
PHOTO mode lamp	PHOTO mode																						
TEXT mode lamp & PHOTO mode lamp	TS mode (TEXT) (600dpi)																						
AE mode lamp & PHOTO mode lamp	TS mode (AE) (600dpi)																						
	30	AE limit setting	<p>Used to set the AE and the limit value at AE (toner save).The set range is 0 ~ 31. The default is 0.</p> <p>Change the setting and press the [START] key, and it will be written into the EEPROM and the machine will go into the sub code input standby mode. When the [Copy mode select] key is pressed, the machine goes back to the gamma table setting mode.</p> <table><tr><th>Display lamp</th><th>Setting mode</th></tr><tr><td>AE mode lamp</td><td>Limit value for AE</td></tr><tr><td>AE mode lamp \$ PHOTO mode lamp</td><td>Limit value for AE (Toner save)</td></tr></table> <p><b>&lt;Remark&gt;</b></p> <p>When SIM26-60 (Destination setting) and SIM46-19 (Auto exposure mode) are changed, this set content of this simulation is also changed to the default.</p>	Display lamp	Setting mode	AE mode lamp	Limit value for AE	AE mode lamp \$ PHOTO mode lamp	Limit value for AE (Toner save)														
Display lamp	Setting mode																						
AE mode lamp	Limit value for AE																						
AE mode lamp \$ PHOTO mode lamp	Limit value for AE (Toner save)																						
	31	Image sharpness adjustment	<p>Used to adjust clear/shading of image for each mode.</p> <p><b>(Operating procedure)</b></p> <p>When this simulation is executed, warm-up and shading are performed, and the current set value is displayed in two digits. (Default: 1)</p> <p>Change the set value and press the [START] key, and a copy is made according to the set value.</p> <table><tr><th>Set value</th><th>Image quality</th></tr><tr><td>0</td><td>Shading</td></tr><tr><td>1</td><td>Standard *Default</td></tr><tr><td>2</td><td>Clear</td></tr></table> <p>Use the [Copy mode select] key to select each copy mode. The code number of the selected copy mode is displayed on the copy quantity display.</p> <table><tr><th>Display lamp</th><th>Copy mode</th></tr><tr><td>AE mode lamp</td><td>AE mode</td></tr><tr><td>TEXT mode lamp</td><td>TEXT mode</td></tr><tr><td>PHOTO mode lamp</td><td>PHOTO mode</td></tr><tr><td>TEXT mode lamp &amp; PHOTO mode lamp</td><td>TS mode (TEXT)</td></tr><tr><td>AE mode lamp &amp; PHOTO mode lamp</td><td>TS mode (AE)</td></tr></table>	Set value	Image quality	0	Shading	1	Standard *Default	2	Clear	Display lamp	Copy mode	AE mode lamp	AE mode	TEXT mode lamp	TEXT mode	PHOTO mode lamp	PHOTO mode	TEXT mode lamp & PHOTO mode lamp	TS mode (TEXT)	AE mode lamp & PHOTO mode lamp	TS mode (AE)
Set value	Image quality																						
0	Shading																						
1	Standard *Default																						
2	Clear																						
Display lamp	Copy mode																						
AE mode lamp	AE mode																						
TEXT mode lamp	TEXT mode																						
PHOTO mode lamp	PHOTO mode																						
TEXT mode lamp & PHOTO mode lamp	TS mode (TEXT)																						
AE mode lamp & PHOTO mode lamp	TS mode (AE)																						

Main code	Sub code	Contents	Details of operation																																								
48	01	Main scanning/sub scanning direction magnification ratio adjustment	Used to adjust the magnification ratio in the main scanning direction (front/rear) and the sub scanning direction. Enter the adjustment value with the 10-key and press the [START] key, and the entered value is saved a copy is made. (When the set value is increased by 1, the magnification ratio is increased by 0.1 %.) (Adjustment range: 1 ~ 99, Default: 50)																																								
			<table><tr><th>Lighting lamp</th><th>Adjustment mode</th></tr><tr><td>TEXT lamp</td><td>Main scanning direction magnification ratio adjustment</td></tr><tr><td>PHOTO lamp</td><td>Sub scanning direction magnification ratio adjustment</td></tr></table>	Lighting lamp	Adjustment mode	TEXT lamp	Main scanning direction magnification ratio adjustment	PHOTO lamp	Sub scanning direction magnification ratio adjustment																																		
			Lighting lamp	Adjustment mode																																							
			TEXT lamp	Main scanning direction magnification ratio adjustment																																							
PHOTO lamp	Sub scanning direction magnification ratio adjustment																																										
05	SPF/RSPF mode sub scanning magnification ratio adjustment in copying	The current SPF/RSPF mode sub scan direction magnification ratio adjustment value is displayed. When the [START] key is pressed, the entered value is acquired and saved into the EEPROM, and a copy is made. When the [CA] key is pressed instead, the simulation mode is terminated. In RSPF adjustment, after the machine enters the copy mode of one page, select the single copy mode with the duplex key to shift to the single copy mode, making two pages of single copy. For printing, regardless of the density mode LED and the density level LED display, the density mode = MANUAL, and density level = 3.																																									
		<table><tr><th>Lighting lamp</th><th>Adjustment mode</th></tr><tr><td>AE lamp</td><td>SPF/RSPF document surface magnification ratio adjustment</td></tr><tr><td>TEXT lamp</td><td>RSPF document back magnification ratio adjustment</td></tr></table>	Lighting lamp	Adjustment mode	AE lamp	SPF/RSPF document surface magnification ratio adjustment	TEXT lamp	RSPF document back magnification ratio adjustment																																			
Lighting lamp	Adjustment mode																																										
AE lamp	SPF/RSPF document surface magnification ratio adjustment																																										
TEXT lamp	RSPF document back magnification ratio adjustment																																										
49	01	Flash ROM program writing mode	<p><b>(Operating procedure)</b> When this simulation is executed, "d" is displayed on the copy quantity display and the machine enters the Flash ROM program writing mode. Use the writing tool on the PC to write the program. During writing, the display is made as follows. After completion of downloading, turn OFF/ON the power to reset.</p> <table><tr><th>Status</th><th>Copy quantity display</th><th>Pre-heat lamp</th><th>Ready lamp</th></tr><tr><td>Download data reception</td><td>"d"</td><td>ON</td><td>OFF</td></tr><tr><td>Data delete start</td><td>"d"</td><td>ON</td><td>ON</td></tr><tr><td>Data writing (Boot section)</td><td>"d"</td><td>Flash</td><td>OFF</td></tr><tr><td>Data writing (Program section)</td><td>"d"</td><td>Flash</td><td>Flash</td></tr><tr><td>Sum check</td><td>"d"</td><td>ON</td><td>ON</td></tr><tr><td>Completion of downloading</td><td>"OFF"</td><td>OFF</td><td>OFF</td></tr><tr><td>Error status</td><td>"*E"</td><td>OFF</td><td>OFF</td></tr></table> <p>*    "*" in the error display indicates the error position.</p> <table><tr><td>1. Data reception error</td><td>5. Flash ROM writing (Program section)</td></tr><tr><td>2. Loader function transfer</td><td>6. Sum check (Loader section)</td></tr><tr><td>3. Flash ROM delete</td><td>7. Sum check (Boot section)</td></tr><tr><td>4. Flash ROM writing (Boot section)</td><td>8. Sum check (Program section)</td></tr></table>	Status	Copy quantity display	Pre-heat lamp	Ready lamp	Download data reception	"d"	ON	OFF	Data delete start	"d"	ON	ON	Data writing (Boot section)	"d"	Flash	OFF	Data writing (Program section)	"d"	Flash	Flash	Sum check	"d"	ON	ON	Completion of downloading	"OFF"	OFF	OFF	Error status	"*E"	OFF	OFF	1. Data reception error	5. Flash ROM writing (Program section)	2. Loader function transfer	6. Sum check (Loader section)	3. Flash ROM delete	7. Sum check (Boot section)	4. Flash ROM writing (Boot section)	8. Sum check (Program section)
Status	Copy quantity display	Pre-heat lamp	Ready lamp																																								
Download data reception	"d"	ON	OFF																																								
Data delete start	"d"	ON	ON																																								
Data writing (Boot section)	"d"	Flash	OFF																																								
Data writing (Program section)	"d"	Flash	Flash																																								
Sum check	"d"	ON	ON																																								
Completion of downloading	"OFF"	OFF	OFF																																								
Error status	"*E"	OFF	OFF																																								
1. Data reception error	5. Flash ROM writing (Program section)																																										
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4. Flash ROM writing (Boot section)	8. Sum check (Program section)																																										

Main code	Sub code	Contents	Details of operation																
50	01	Image lead edge adjustment	<p>Used to adjust the copy image position and the lead edge void amount on the copy paper. This adjustment is made by adjusting the image scan start position at 100% and the print start position (resist roller ON timing).</p> <p><b>(Operating procedure)</b></p> <p>When this simulation is executed, the current set value is displayed in two digits. (Center value: 50)</p> <p>When the copy mode select key is pressed, the setting mode and the display are switched. Enter the adjustment value with the 10-key and press the [START] key, and the entered value is set and a copy is made. (Adjustment range 1 ~ 99) When the [INTERRUPT] key is pressed, the entered value is saved and the machine goes into the sub code entry standby mode. When the [CA] key is pressed, the entered value is saved and the simulation is terminated. When the adjustment is made with the main cassette paper feed, all the adjustment values at the paper feed ports become the same. (When the adjustment value is increased by 1, the position is shifted by about 0.1mm.)</p> <table><tr><th>Lighting lamp</th><th>Adjustment mode</th></tr><tr><td>AE, Main cassette lamp</td><td>Print start position (Main cassette paper feed)</td></tr><tr><td>AE, 2nd cassette lamp</td><td>★ Print start position (2nd cassette paper feed)</td></tr><tr><td>AE, Manual paper feed lamp</td><td>Print start position (Manual paper feed)</td></tr><tr><td>TEXT lamp</td><td>Image lead edge void amount</td></tr><tr><td>PHOTO lamp</td><td>Image scan start position</td></tr><tr><td>AE, TEXT, PHOTO lamp</td><td>Image rear edge void amount</td></tr></table> <p>* The mark, "★", indicates that it is supported only for the installed model, and it is skipped for non-installed models.</p> <p>Note: When printing is made with manual paper feed, use A3 paper.</p> <p>When the adjustment value of the print start position is increased by 1, the resist roller ON timing is delayed and the print image is reduced by 0.1mm. When the adjustment value of the image scan start position is increased by 1, the scan start position is shifted to the home position by 0.1mm.</p> <p><b>[Adjustment procedure]</b></p> <p>(1) Set the print start position (A) (AE ON), the lead edge void amount (B) (TEXT ON), and the scan start position (C) (PHOTO ON) to &lt;1&gt;, and make a 100% copy.</p> <p>(2) Measure the image loss (R mm) of the scale. Set as C=10 x R (mm). (Example: Set to 40.) When the value of C is increased by 10, the image loss is decreased by 1mm. (Default: 50)</p> <p>(3) Measure the distance between the paper lead edge and the image print start position. Set as A=10 x H (mm). (Example: Set to 50.) When the value of A is increased by 10, the image lead edge is shifted toward the paper lead edge by 1mm. (Default: 50)</p> <p>(4) Set the lead edge void area as B=50 (2.5mm). (Default: 50) When the value of B is increased by 10, the void is increased by about 1mm. (For 25 or less, however, the void amount is zero.)</p> <p><b>(Example)</b></p> 	Lighting lamp	Adjustment mode	AE, Main cassette lamp	Print start position (Main cassette paper feed)	AE, 2nd cassette lamp	★ Print start position (2nd cassette paper feed)	AE, Manual paper feed lamp	Print start position (Manual paper feed)	TEXT lamp	Image lead edge void amount	PHOTO lamp	Image scan start position	AE, TEXT, PHOTO lamp	Image rear edge void amount		
Lighting lamp	Adjustment mode																		
AE, Main cassette lamp	Print start position (Main cassette paper feed)																		
AE, 2nd cassette lamp	★ Print start position (2nd cassette paper feed)																		
AE, Manual paper feed lamp	Print start position (Manual paper feed)																		
TEXT lamp	Image lead edge void amount																		
PHOTO lamp	Image scan start position																		
AE, TEXT, PHOTO lamp	Image rear edge void amount																		
06		Copy lead edge position adjustment (SPF/RSPF)	<p>Used to make the SPF copy lead edge position adjustment.</p> <p>* When the adjustment value of the document scan start position is increased by 1, the scan start timing is advanced by 0.1mm. The print image is shifted to the reverse side of the scan start position. (Adjustment range: 1 ~ 99, Default: 50)</p> <p><b>&lt;Adjustment items&gt;</b></p> <table><tr><th>Lighting lamp</th><th>Item</th><th>Default</th><th>Variable range</th></tr><tr><td>AE</td><td>Front document scan position adjustment</td><td>50</td><td>1 ~ 99</td></tr><tr><td>TEXT</td><td>Back document scan position adjustment</td><td>50</td><td>1 ~ 99</td></tr><tr><td>PHOTO</td><td>Rear edge void adjustment (SPF)</td><td>50</td><td>1 ~ 99</td></tr></table>	Lighting lamp	Item	Default	Variable range	AE	Front document scan position adjustment	50	1 ~ 99	TEXT	Back document scan position adjustment	50	1 ~ 99	PHOTO	Rear edge void adjustment (SPF)	50	1 ~ 99
Lighting lamp	Item	Default	Variable range																
AE	Front document scan position adjustment	50	1 ~ 99																
TEXT	Back document scan position adjustment	50	1 ~ 99																
PHOTO	Rear edge void adjustment (SPF)	50	1 ~ 99																



Main code	Sub code	Contents	Details of operation																
50	10	Paper off-center adjustment	<p>Used to adjust the positions of copy images on copy paper and the center offset position when scanning the document.</p> <p><b>&lt;Operating procedure&gt;</b></p> <p>When this simulation is executed, the current set value is displayed. Enter the adjustment value with the 10-key and press the [START] key, and the entered value is stored and a copy is made.</p> <p>When the [INTERRUPT] key is pressed, the entered value is saved and the machine goes into the sub code entry standby mode. When the [CA] key is pressed, the entered value is saved and the simulation is terminated.</p> <p>(When the set value is increased by 1, the position is shifted by 0.1mm.)</p> <p><b>&lt;Supplement&gt;</b></p> <p>When the adjustment value is increased, the image is shifted to the left. When the adjustment value is decreased, the image is shifted to the right.</p> <table><tr><th>Lighting lamp</th><th>Adjustment mode</th></tr><tr><td>AE, Main cassette lamps</td><td>Print center offset (Main cassette paper feed)</td></tr><tr><td>AE, 2nd cassette lamps</td><td>★ Print center offset (2nd cassette paper feed)</td></tr><tr><td>AE, 3rd cassette lamps</td><td>★ Print center offset (3rd cassette paper feed)</td></tr><tr><td>AE, 4th cassette lamps</td><td>★ Print center offset (4th cassette paper feed)</td></tr><tr><td>AE, Manual paper feed lamps</td><td>Print center offset (Manual paper feed)</td></tr><tr><td>TEXT, main cassette lamps</td><td>2nd print center offset (Main cassette paper feed)</td></tr></table> <p>★ Supported for the installed models only. Skipped for the models without installation.</p> <p>Note: When the adjustment value is too great, the outside area of shading may be scanned, resulting in black streaks on copy paper.</p> <p>When printing is made with manual paper feed, use A3 paper.</p>	Lighting lamp	Adjustment mode	AE, Main cassette lamps	Print center offset (Main cassette paper feed)	AE, 2nd cassette lamps	★ Print center offset (2nd cassette paper feed)	AE, 3rd cassette lamps	★ Print center offset (3rd cassette paper feed)	AE, 4th cassette lamps	★ Print center offset (4th cassette paper feed)	AE, Manual paper feed lamps	Print center offset (Manual paper feed)	TEXT, main cassette lamps	2nd print center offset (Main cassette paper feed)		
Lighting lamp	Adjustment mode																		
AE, Main cassette lamps	Print center offset (Main cassette paper feed)																		
AE, 2nd cassette lamps	★ Print center offset (2nd cassette paper feed)																		
AE, 3rd cassette lamps	★ Print center offset (3rd cassette paper feed)																		
AE, 4th cassette lamps	★ Print center offset (4th cassette paper feed)																		
AE, Manual paper feed lamps	Print center offset (Manual paper feed)																		
TEXT, main cassette lamps	2nd print center offset (Main cassette paper feed)																		
12		Document off-center adjustment	<p>Used to make the document scan off-center adjustment.</p> <p>(Adjustment range: 1 ~ 99, Default: 50)</p> <p>* When the adjustment value is increased by 1, the print image is shifted by 0.1mm to the left when the scan start position is put on the upper side.</p> <p><b>&lt;Adjustment item&gt;</b></p> <table><tr><th>Lighting lamp</th><th>Item</th><th>Default</th><th>Variable range</th></tr><tr><td>AE</td><td>Platen document scan</td><td>50</td><td>1 ~ 99</td></tr><tr><td>TEXT</td><td>SPF document front scan</td><td>50</td><td>1 ~ 99</td></tr><tr><td>PHOTO</td><td>RSPF document back scan</td><td>50</td><td>1 ~ 99</td></tr></table>	Lighting lamp	Item	Default	Variable range	AE	Platen document scan	50	1 ~ 99	TEXT	SPF document front scan	50	1 ~ 99	PHOTO	RSPF document back scan	50	1 ~ 99
Lighting lamp	Item	Default	Variable range																
AE	Platen document scan	50	1 ~ 99																
TEXT	SPF document front scan	50	1 ~ 99																
PHOTO	RSPF document back scan	50	1 ~ 99																
18		Duplex copy memory reverse position adjustment	<p>Used to adjust the memory reverse position in duplex copy. When this simulation is executed, the current correction value is displayed.</p> <p>Enter a correction value with the 10-key and press the [START] key, and the entered value will be saved. (The correction value range is 1 ~ 99. The default is 50.)</p> <table><tr><th>Lighting lamp</th><th>Item</th></tr><tr><td>AE</td><td>OC memory reverse output position</td></tr><tr><td>TEXT</td><td>SPF memory reverse output position</td></tr></table> <p>Printing of the front surface in the S-D mode and printing of the even pages in the D-S mode are performed as reverse memory copying from the rear edge of the document.</p> <p>When, therefore, the printing position adjustment of output image is required, perform the adjustment as follows:</p> <p>The image direction in reverse memory copying is shown in the figure below. That is, when the document scan direction is as shown with the arrow, the output image is printed from the rear edge of scanning. If, therefore, the print edge section is shifted, set the reference chart with the reference position at the rear edge and use this simulation to change the set value in order to adjust the print lead edge position.</p> <p>Since printing is started at the print start position and performed from the last, saved data in the memory to the head data, the lead edge position of an image is adjusted by changing the last data position saved in the memory.</p> <div><div><p>Document transport direction</p><p>Scanning lead edge</p><p>Scanning direction</p><p>Scanning rear edge</p><p>Scanning end position (Scanning cut by void (1) as default)</p></div><div><p>Paper transport direction</p><p>Print lead edge Lead edge void (1) Print start position</p><p>Rear edge void Print rear edge</p></div></div>	Lighting lamp	Item	AE	OC memory reverse output position	TEXT	SPF memory reverse output position										
Lighting lamp	Item																		
AE	OC memory reverse output position																		
TEXT	SPF memory reverse output position																		

Main code	Sub code	Contents	Details of operation																				
50	19	Duplex copy rear edge void adjustment	<p>Used to adjust the rear edge void amount in duplex copy.</p> <p><b>(Operating procedure)</b></p> <p>When this simulation is executed, the current set value is displayed in two digits. (Adjustment range: 1 ~ 99, Center value: 50)</p> <p>* When the set value is increased by 1, the void amount is increased by about 0.1mm.</p> <p>Press the copy mode select key to select a suitable setting mode and a display. Enter the adjustment value with the 10-key and press the [START] key, and the entered value is saved and a copy is made. (Paper information is cleared after every copying).</p> <p>When the [INTERRUPT] key is pressed, the entered value is saved and the machine goes into the sub code entry standby mode. When the [CA] key is pressed, the entered value is saved and the simulation is terminated.</p> <table><tr><th>Lighting lamp</th><th>Item</th></tr><tr><td>AE lamp</td><td>Paper rear edge void amount (First print surface)</td></tr><tr><td>TEXT lamp</td><td>Paper rear edge void amount (Second print surface)</td></tr><tr><td>PHOTO lamp</td><td>Print start position (duplex back surface)</td></tr></table>	Lighting lamp	Item	AE lamp	Paper rear edge void amount (First print surface)	TEXT lamp	Paper rear edge void amount (Second print surface)	PHOTO lamp	Print start position (duplex back surface)												
Lighting lamp	Item																						
AE lamp	Paper rear edge void amount (First print surface)																						
TEXT lamp	Paper rear edge void amount (Second print surface)																						
PHOTO lamp	Print start position (duplex back surface)																						
51	02	Resist amount adjustment	<p>Used to adjust the contact pressure of the machine resist roller and the RSPF resist roller onto the paper.</p> <p><b>(Operating procedure)</b></p> <p>When this simulation is executed, the current set value is displayed.</p> <p>When the exposure mode key is pressed, the following set items are changed sequentially. Enter an adjustment value with the 10-key and press the [START] key, and the entered value will be saved and a copy will be made. (Adjustment range: 1 ~ 99, Default: 50)</p> <p>When the [CA] key is pressed, the entered value is saved and the simulation is terminated.</p> <table><tr><th>Lighting lamp</th><th>Adjustment mode</th></tr><tr><td>AE, Main cassette lamp</td><td>Main cassette paper feed</td></tr><tr><td>AE, 2nd cassette lamp</td><td>★ 2nd cassette paper feed</td></tr><tr><td>AE, 3rd cassette lamp</td><td>★ 3rd cassette paper feed</td></tr><tr><td>AE, 4th cassette lamp</td><td>★ 4th cassette paper feed</td></tr><tr><td>AE, Manual paper feed lamp</td><td>Manual paper feed</td></tr><tr><td>AE, TEXT, PHOTO lamps</td><td>★ RSPF document feed (Front surface)</td></tr><tr><td>AE, TEXT lamps</td><td>★ RSPF document feed (Back surface)</td></tr><tr><td>AE, PHOTO lamp</td><td>★ RSPF document (A5) paper feed (Back surface)</td></tr><tr><td>TEXT, PHOTO lamps</td><td>★ Duplex back surface</td></tr></table> <p>★ Supported for the installed models only. Skipped for the models without installation.</p>	Lighting lamp	Adjustment mode	AE, Main cassette lamp	Main cassette paper feed	AE, 2nd cassette lamp	★ 2nd cassette paper feed	AE, 3rd cassette lamp	★ 3rd cassette paper feed	AE, 4th cassette lamp	★ 4th cassette paper feed	AE, Manual paper feed lamp	Manual paper feed	AE, TEXT, PHOTO lamps	★ RSPF document feed (Front surface)	AE, TEXT lamps	★ RSPF document feed (Back surface)	AE, PHOTO lamp	★ RSPF document (A5) paper feed (Back surface)	TEXT, PHOTO lamps	★ Duplex back surface
Lighting lamp	Adjustment mode																						
AE, Main cassette lamp	Main cassette paper feed																						
AE, 2nd cassette lamp	★ 2nd cassette paper feed																						
AE, 3rd cassette lamp	★ 3rd cassette paper feed																						
AE, 4th cassette lamp	★ 4th cassette paper feed																						
AE, Manual paper feed lamp	Manual paper feed																						
AE, TEXT, PHOTO lamps	★ RSPF document feed (Front surface)																						
AE, TEXT lamps	★ RSPF document feed (Back surface)																						
AE, PHOTO lamp	★ RSPF document (A5) paper feed (Back surface)																						
TEXT, PHOTO lamps	★ Duplex back surface																						
53	08	SPF scanning position automatic adjustment	<p>Place the black chart so that it covers both the SPF scan glass and the OC glass. Close the OC cover. When this simulation is executed, the current adjustment value is displayed as the initial display. When the [START] key is pressed, the mirror unit scans from the home position to the SPF scan position with the current adjustment value displayed, and the SPF glass cover edge is calculated from the difference between the SPF glass cover edge and the OC side document glass CCD output level.</p> <p>* The default is 50, the adjustment range is 1 ~ 99, and the adjustment unit 1= about 0.127mm.</p> <p>If the adjustment is completed normally, the adjusted value is displayed. If not, the jam lamp lights up with the current set value displayed. When the [START] key is pressed again with the jam lamp ON, the execution is repeated again. When the [Interrupt] key or the [CA] key is pressed during execution, "- -" is displayed and the operation is canceled. The mirror returns to its home position and the simulation mode is terminated. In the case when the [Interrupt key] is pressed, the machine goes into the sub code input standby mode. In the case when the [CA] key is pressed, all the lamps are turned off.</p> <table><tr><th>ON lamp</th><th>Display mode</th></tr><tr><td>AE lamp</td><td>SPF scan position automatic adjustment</td></tr><tr><td>TEXT lamp</td><td>SPF scan position manual adjustment</td></tr></table>	ON lamp	Display mode	AE lamp	SPF scan position automatic adjustment	TEXT lamp	SPF scan position manual adjustment														
ON lamp	Display mode																						
AE lamp	SPF scan position automatic adjustment																						
TEXT lamp	SPF scan position manual adjustment																						
61	03	HSYNC output check	<p>When the [START] key is pressed, HSYNC is performed and the polygon motor is rotated for 30 sec. Every time when HSYNC is detected, the zoom lamp is lighted for 100msec.</p>																				

Main code	Sub code	Contents	Details of operation										
63	01	Shading check	<p>The detection level of the white plate for shading is displayed.</p> <p><b>(Operating procedure)</b> When the [START] key is pressed in the sub code input standby mode, the mirror base unit moves to the white plate for shading and the copy lamp is lighted. Until the light quantity of the copy lamp is stabilized, the sub code of "01" is displayed on the 7-seg display. When the light quantity of the copy lamp is stabilized, it is revised every second, and the level of one pixel at the CCD center where no correction is made is detected for 10 sec, and the detected level is displayed in hexadecimal on the 7-seg display. After completion of 10 sec detection, the machine goes into the sub code input standby mode.</p>										
	07	SPF automatic correction	<p>The SPF white correction start pixel position is automatically adjusted.</p> <p>This is performed after replacement of the lens. Open the SPF unit and press the [START] key, and the position (which pixel) of the white sheet for SPF exposure correction in the SPF position is displayed on the 7-seg display.</p> <p>If the value is 93 ~ 229, it is displayed on the 7-seg display and is written into the EEPROM.</p> <p>If the value is 0 ~ 92 or 230 ~ 999, it is displayed on the 7-seg display but is not written into the EEPROM.</p> <p>If the value is 1000 or above, "-----" is displayed on the 7-seg display and is not written into the EEPROM.</p> <p>The pixel position -34 written into the EEPROM is considered as the SPF white correction start pixel of the machine.</p> <p>When shi simulation is executed with the SPF unit closed, an error will occur.</p>										
64	01	Self print	<p>The optical system status is ignored and a self print is made. Also when a print command is sent from the host, printing is performed.</p> <p><b>(Operating procedure)</b> When this simulation is executed, warm-up is performed and the ready lamp is lighted. (However, the scanner is invalid and no initial operation is made.) Enter the code number with the 10-key, and select a cassette with the cassette select key and press the [START] key. The selected cassette start paper feed and printing is performed in the selected pattern.</p> <p>* Only the tray lamp and the online lamp are lighted, and no other lamps are lighted.</p> <p>Printing is made in 1 by 2 mode, where one line is printed and the following two liens are not printed, or in the grid pattern.</p> <table><tr><th>Code number</th><th>Pattern</th></tr><tr><td>0</td><td>1 by 2</td></tr><tr><td>1</td><td>Grid pattern</td></tr><tr><td>2</td><td>White paper</td></tr><tr><td>3</td><td>Black background</td></tr></table> <p>* Print data are made on A3 size. (A3 paper is preferable.)</p>	Code number	Pattern	0	1 by 2	1	Grid pattern	2	White paper	3	Black background
Code number	Pattern												
0	1 by 2												
1	Grid pattern												
2	White paper												
3	Black background												

## [8] USER PROGRAMS

The user programs allow the parameters of certain functions to be set, changed, or canceled as desired.

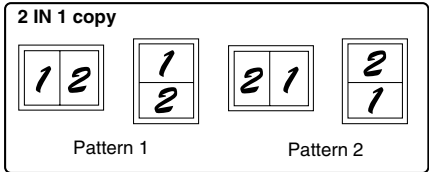
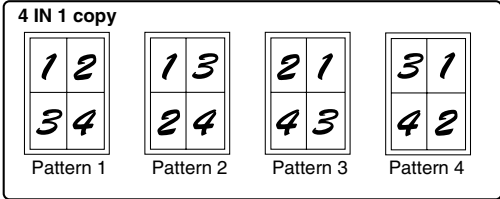
### 1. List of user programs

This copier has the following user programs.

Program name	Program No	Description	Default	Parameters
Auto clear time	1	"Auto clear time" automatically returns the copy settings to the initial settings when a certain period of time elapses after a copy is made. This program is used to select the period of time. "Auto clear time" can also be disabled.	60sec	1 (OFF) 2 (10sec) 3 (20sec) 4 (60sec) 5 (90sec) 6 (120sec)
Preheat mode	2	This function automatically switches the machine to a low power consumption state if the set duration of time elapses without the machine being used when the power is on. The POWER SAVE indicator lights up, however, the keys on the operation panel can be used. Normal operation automatically resumes when a key on the operation panel is pressed, an original is placed, a print job is received, or scanning is begun from a computer.	1min	1 (1min) 2 (5min) 3 (30min) 4 (60min) 5 (120min) 6 (240min)
Auto power shut-off timer	3	This function automatically switches the machine to a state that consumes even less power than preheat mode if the set duration of time elapses without the machine being used when the power is on. All lights except the POWER SAVE indicator and ON LINE indicator go off. To resume normal operation, press the [START] key (⏻). Normal operation also resumes automatically when a print job is received or scanning is begun from a computer. While in auto power shut-off mode, no keys (except the [START] key (⏻)) can be used.	5min	1 (5min) 2 (30min) 3 (60min) 4 (120min) 5 (240min)
Stream feeding mode*1	4	When copying using the SPF/RSPF, during the period of time that the SPF/RSPF indicator blinks after an original has been scanned (about 5 seconds), a subsequent original can be placed and automatically fed into the machine.	OFF	0 (OFF) 1 (ON)
Auto power shut-off setting	5	Use this setting to enable or disable auto power shut-off.	ON	0 (OFF) 1 (ON)
Border line for 2 IN 1 / 4 IN 1*2	6	When copying multiple originals onto a single sheet of paper (2 IN 1 / 4 IN 1 copy), this function can be used to print a solid or broken borderline around each original image.	OFF	1 (OFF) 2 (Solid line) 3 (Broken line)
Rotation copy*2	7	When the auto paper select function is enabled and there is no paper that is the same size as the original and loaded in the same orientation, this function will automatically select paper of the same size that is loaded in the opposite orientation, and rotate the image 90 degrees so that it is copied on the paper in the correct orientation. When the auto ratio select function is operating and the original and paper are loaded in opposite orientations, this function rotates the image so that it is copied on the paper in the correct orientation.	ON	0 (OFF) 1 (ON)
Auto paper select mode	8	This function automatically selects paper that is the same size as the original placed in the SPF/RSPF, or the same size as that selected with the [ORIGINAL SIZE ENTER] key (only for sizes 5-1/2" x 8-1/2", 8-1/2" x 11", 8-1/2" x 11"R, 8-1/2" x 14" and 11" x 14"). The function can be disabled.	ON	0 (OFF) 1 (ON)
Auto tray switching	9	If the paper runs out during printing and there is paper of the same size and orientation in another tray, this function automatically switches to that tray (excluding the bypass tray). The function can be disabled.	ON	0 (OFF) 1 (ON)
Auditing mode	10 to 15	See "Enabling Audit Mode".	-	-
Erase width adjustment*2	16	Use this setting to set the width of erasure of shadows that appear around the edges and at the binding margin when a book or similar original is copied.	1/2" (10mm)	1 (0" (0mm)) 2 (1/4" (5mm)) 3 (1/2" (10mm)) 4 (3/4" (15mm)) 5 (1" (20mm))

\*1 On models with a SPF/RSPF.

\*2 On models with a dual function board.

Program name	Program No	Description	Default	Parameters
Layout in 2 IN 1 copy*2	17	Use this setting to select the layout pattern when two original pages are copied onto a single sheet of paper. 	Pattern 1	1 (Pattern 1) 2 (Pattern 2)
Layout in 4 IN 1 copy*2	18	Use this setting to select the layout pattern when four original pages are copied onto a single sheet of paper. 	Pattern 1	1 (Pattern 1) 2 (Pattern 2) 3 (Pattern 3) 4 (Pattern 4)
Offset of paper output tray	19	When enabled, this function offsets the position in the output tray of interrupt copy jobs and sets of copies during sort/group copy.	ON	0 (OFF) 1 (ON)
Image rotation in duplex copying*3	20	When a one-sided portrait original is placed in a horizontal orientation (8-1/2" x 11" or 8-1/2" x 14" size) for two-sided copying, the top and bottom of the images on the front and back of the paper will be opposite to each other,	OFF	0 (OFF) 1 (ON)
Location of the margin*2,*3	21	Use this setting to switch between the margin at the top edge and the margin at the left edge.	Left edge	1 (Left edge) 2 (Top edge)
Margin width*2	22	Use this setting to set the margin width.	1/2" (10mm)	1 (0" (0mm)) 2 (1/4" (5mm)) 3 (1/2" (10mm)) 4 (3/4" (15mm)) 5 (1" (20mm))
Resolution in Auto/Text mode	23	The copy resolution in auto and text mode is normally 300 dpi. If high-quality copies are preferred, use this setting to change the resolution to 600 dpi.	300dpi	1 (300dpi) 2 (600dpi)
Memory allocated to printer mode*2	24	Use this to change the proportion of IMC memory used for printer mode.	50%	1 (30%) 2 (40%) 3 (50%) 4 (60%) 5 (70%)
Key auto repeat	25	Use this setting to select whether or not holding down a key causes repeated input of the key. For keys that normally cause a set value to increase when held down (for example, holding down the [ZOOM] key (⊖, ⊕)), this program can be used to have the set value not change when the key is held down.	ON	0 (OFF) 1 (ON)
Key press time	26	Use this setting to select how long a key must be pressed for the input to be accepted. By selecting a longer time, you can prevent settings from being changed by the accidental pressing of a key.	Minimum (current response speed)	1 (Minimum (current response speed)) 2 (0.5sec) 3 (1.0sec) 4 (1.5sec) 5 (2.0sec)
Audible signals volume	27	This sets the volume of beep signals.	Low (current volume)	1 (Low (current volume)) 2 (High) 3 (OFF)
Base setting beep signal	28	Use this to sound a beep when a base setting is selected.	OFF	0 (OFF) 1 (ON)
Number of copies limit	29	Use this setting to select 99 or 999 for the maximum number of copies.	999 copies	1 (99 copies) 2 (999 copies)

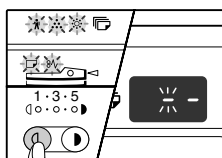
\*2 On models with a dual function board.

\*3 On models with automatic two-sided copying.

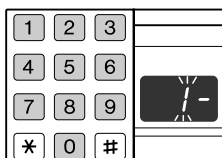
Program name	Program No	Description	Default	Parameters
Use close paper size	30	When this function is enabled, printing in printer mode will automatically continue using a different size of paper if the specified size of paper runs out in all trays. This feature does not function in copy mode.	OFF	0 (OFF) 1 (ON)
Default tray setting	31	Use this program to select a default tray. This tray is automatically selected each time the power is turned on or each time the machine reverts to the initial settings.	Tray 1	1 (Tray 1) 2 (Tray 2) 3 (Tray 3) 4 (Tray 4) 5 (Bypass tray)
Default exposure mode	32	Use this program to set "AUTO", "TEXT", or "PHOTO" as the default exposure mode.	AUTO	1 (AUTO) 2 (TEEXT) 3 (PHOTO)
USB2.0 mode switch	33	Used to switch USB2.0 mode between Full-Speed and High-Speed.	Full-Speed	1(Full-Speed) 2(High-Speed)

## 2. Setting the user programs

- 1) Hold down the [Light] key (ⓘ) until the alarm indicators ( , , , , ) blink.  
• "-" appears in the display.

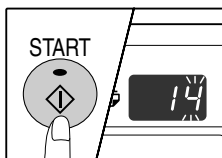


- 2) Enter the program number with the numeric keys.  
• See "USER PROGRAMS" for the program numbers.  
• The selected program number blinks.  
• To select "Auto clear timer", press the [1] key.

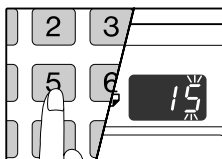


Note: If you enter the wrong number, press the [CLEAR] key (C) and then enter the correct number.

- 3) Press the [START] key (Ⓢ).  
• The selected program number stops blinking and lights steadily.  
• The currently selected setting code blinks in the 1st digit of the display.

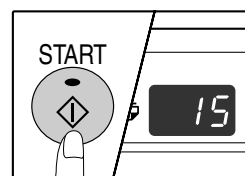


- 4) Enter the desired setting code by pressing a numeric key.  
• For the setting codes, see "USER PROGRAMS".  
• The selected setting code blinks.  
• To select 90 seconds, press the [5] key.



Note: If you enter the wrong number, press the [CLEAR] key (C) and return to step 2).

- 5) Press the [START] key (Ⓢ).  
• The selected setting code stops blinking and lights steadily.



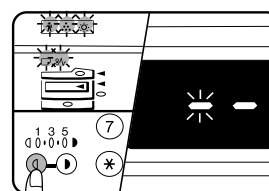
Note: To select a setting for another user program, press the [CLEAR] key (C) and then return to step 2).

- 6) Press the [Light] key (ⓘ) to complete the settings.  
• The alarm indicators ( , , , , ) go off and the display returns to the number of copies display.

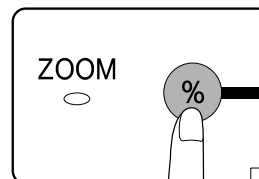
## 3. Toner cartridge life

To find out the approximate quantity of toner remaining, follow the procedure below.

- 1) Press and hold the light key for more than 5 seconds until all the alarm indicators ( , , , , ) blink and "-" appears in the copy quantity display.



- 2) Press and hold the copy ratio display key for more than 5 seconds.  
• The approximate quantity of toner remaining will be indicated as a percent in the copy quantity display. ("100", "75", "50", "25", "10" or "LO" is displayed. When "LO" is displayed, the toner is down to less than 10%.)



- 3) Press the light key.  
• All the alarm indicators will go out.

## [9]TROUBLE CODE LIST

### 1.Trouble code list

Main code	Sub code	Content
E1	00	IMC PWB communication trouble
	10	IMC PWB trouble
	11	IMC ASIC error
	13	IMC PWB flash ROM error
	16	IMC PWB DIMM memory read/write check error
	81	Interface error in communication with IMC PWB (Parity)
	82	Interface error in communication with IMC PWB (Overrun)
	84	Interface error in communication with IMC PWB (Framing)
E7	01	Duplex model memory error
	02	LSU trouble
	10	Shading trouble (Black correction)
	11	Shading trouble (White correction)
	12	Shading trouble
	16	Abnormal laser output
F2	04	Improper cartridge (destination error, life cycle error)
		Identification error
		Model error
		Type error
		Destination error
		Data abnormality
		Misc error
F5	02	Copy lamp lighting abnormality
H2	00	Thermistor open
H3	00	Heat roller high temperature detection
H4	00	Heat roller low temperature detection
L1	00	Scanner feed trouble
L3	00	Scanner return trouble
L4	01	Main motor lock detection
	11	Shifter motor trouble
L6	10	Polygon motor lock detection
L8	01	No full wave signal
U2	04	EEPROM read/write error (serial communication error)
	11	Counter check sum error (EEPROM)
	12	Adjustment value check sum error (EEPROM)
	40	CRUM chip communication error
--		Auditor NOT READY
CH ON	None	Side door open
CH Blink	None	Developing cartridge not installed

### 2.Details of trouble codes

Main code	Sub code		Details of trouble
E1	00	Content	IMC PWB communication trouble
		Detail	An abnormality occurs in communication between the MCU PWB and the IMC PWB.
		Cause	IMC PWB-MCU PWB harness abnormality MCU PWB connector disconnection IMC PWB ROM defect/data abnormality
		Check and remedy	Check connection of the connector and the harness between the IMC PWB and the MCU PWB. Check the ROM of the IMC PWB.
	10	Content	IMC PWB trouble
		Detail	An abnormality occurs in the IMC PWB.
		Cause	USB chip error/CODEC error on the IMC PWB
		Check and remedy	Replace the IMC PWB with a new one.
	11	Content	IMC ASIC error
		Detail	An abnormality occurs in the IMC PWB.
		Cause	Abnormality in ASIC on the IMC PWB
		Check and remedy	Replace the IMC PWB with a new one.
	13	Content	IMC PWB flash ROM error
		Detail	An abnormality occurs in the IMC flash ROM.
		Cause	IMC PWB abnormality
		Check and remedy	Replace the IMC PWB with a new one. If downloading of the program is abnormally terminated, it may cause an error. Download the program again to avoid this.
	16	Content	IMC PWB DIMM memory read/write check error
		Detail	An installation error occurs in the IMC expansion compression memory module. An error occurs during access to the IMC expansion compression memory.
		Cause	Improper installation of the IMC expansion memory module. IMC expansion memory module abnormality IMC expansion memory contact abnormality IMC PWB abnormality.
		Check and remedy	Check installation of the expansion memory module. Replace the expansion memory module. Replace the IMC PWB with a new one.
	81	Content	Interface error (Parity) in communication with the IMC PWB
		Detail	A parity error occurs in communication between the MCU PWB and the IMC PWB.
		Cause	IMC PWB-MCU PWB harness defect Improper connection of the MCU PWB connector IMC PWB ROM defect/data abnormality"
		Check and remedy	Check connection of the connector/harness between the IMC PWB and the MCU PWB. Check the ROM of the IMC PWB.

Main code	Sub code		Details of trouble
E1	82	Content	Interface error (Overrun) in communication with the IMC PWB
		Detail	An overrun error occurs in communication between the MCU PWB and the IMC PWB.
		Cause	IMC PWB-MCU PWB harness defect Improper connection of the MCU PWB connector IMC PWB ROM defect/data abnormality.
		Check and remedy	Check connection of the connector/harness between the IMC PWB and the MCU PWB. Check the ROM of the IMC PWB.
	84	Content	Interface error (Framing) in communication with the IMC PWB
		Detail	A framing error occurs in communication between the MCU PWB and the IMC PWB.
		Cause	IMC PWB-MCU PWB harness defect Improper connection of the MCU PWB connector IMC PWB ROM defect/data abnormality.
		Check and remedy	Check connection of the connector/harness between the IMC PWB and the MCU PWB. Check the ROM of the IMC PWB.
E7	01	Content	Duplex model memory error
		Detail	The memory capacity for the duplex model machine is improper. Insufficient memory capacity
		Cause	The memory capacity of the MCU PWB is improper.
		Check and remedy	Use SIM 26-39 to check that the memory capacity is 32MB. If it is not 32MB, replace the MCU PWB with a suitable one.
	02	Content	LSU trouble
		Detail	The BD signal from the LSU cannot be detected in a certain cycle. (Always OFF or always ON)
		Cause	LSU connector or LSU harness defect or disconnection Polygon motor rotation abnormality Laser beams are not generated. MCU PWB abnormality.
		Check and remedy	Check connection of the LSU connector. Execute SIM 61-03 to check the LSU operations. Check that the polygon motor rotates normally. Check that the laser emitting diode generates laser beams. Replace the LSU unit. Replace the MCU PWB.
	10	Content	Shading trouble (Black correction)
		Detail	The CCD black scan level is abnormal when the shading.
		Cause	Improper connection of the CCD unit flat cable CCD unit abnormality MCU PWB abnormality.
		Check and remedy	Check connection of the CCD unit flat cable. Check the CCD unit."

Main code	Sub code		Details of trouble	
E7	11	Content	Shading trouble (White correction)	
		Detail	The CCD white scan level is abnormal when the shading.	
		Cause	Improper connection of the CCD unit flat cable Dirt on the mirror, the lens, and the reference white plate Copy lamp lighting abnormality CCD unit abnormality MCU PWB abnormality (When occurred in the SPF scan position.) Improper installation of the mirror unit	
		Check and remedy	Clean the mirror, lens, and the reference white plate. Check the light quantity and lighting status of the copy lamp (SIM 05-03). Check the MCU PWB.	
	12	Content	Shading trouble	
		Detail	White correction is not completed in the specified number of operations.	
		Cause	CCD unit flat cable connection failure. Dirt on mirrors, lenses, and the reference white plate. Copy lamp lighting abnormality CCD unit abnormality MCU PWB abnormality	
		Check and remedy	Clean mirrors, lenses, and the reference white plate. Check the copy lamp light quantity (SIM 05-03) and lighting. Check the CCD unit. Check the MCU PWB.	
	16	Content	Abnormal laser output	
		Detail	When the laser output is stopped, HSYNC is detected.	
		Cause	Laser abnormality MCU PWB abnormality.	
		Check and remedy	Check the laser emitting diode operation. Replace the MCU PWB. "	
	F2	04	Content	Improper cartridge (Destination error, life cycle error)
			Detail	The destination of the machine differs from that of the CRUM. The life cycle information is other than "Not used (FFh)."
			Cause	CRUM chip defect Improper developing unit
			Check and remedy	Replace the CRUM chip. Replace the developing unit.
Identification error			The trade mark code of the CRUM differs. The company code of the CRUM differs.	
Model error			The boot program model code does not coincide with the CRUM model code.	
Type error			When the CRUM type is other than genuine/conversion/production rotation.	
Destination error			The machine destination differs from the CRUM destination.	
Data abnormality			When an error value is included in the initial check information. When the max. toner supply time is 00. When the print hard stop is 00.	
Misc error			When the Misc information is other than "Not used (FFh)."	



Main code	Sub code		Details of trouble
F5	02	Content	Copy lamp lighting abnormality
		Detail	The copy lamp does not turn on.
		Cause	Copy lamp abnormality Copy lamp harness abnormality CCD PWB harness abnormality.
		Check and remedy	Use SIM 5-3 to check the copy lamp operations. <b>When the copy lamp lights up.</b> Check the harness and the connector between the CCD unit and the MCU PWB. <b>When the copy lamp does not light up.</b> Check the harness and the connector between the copy lamp unit and the MCU PWB. Replace the copy lamp unit. Replace the MCU PWB. "
H2	00	Content	Thermistor open
		Detail	The thermistor is open. The fusing unit is not installed.
		Cause	Thermistor abnormality Control PWB abnormality Fusing section connector disconnection The fusing unit is not installed.
		Check and remedy	Check the harness and the connector between the thermistor and the PWB. Use SIM 14 to clear the self diagnostic display.
H3	00	Content	Heat roller high temperature detection
		Detail	The fusing temperature exceeds 240C°.
		Cause	Thermistor abnormality Control PWB abnormality Fusing section connector disconnection.
		Check and remedy	Use SIM 5-02 to check the heater lamp blinking operation. <b>When the lamp blinks normally.</b> Check the thermistor and its harness. Check the thermistor input circuit on the control PWB. <b>When the lamp keeps ON.</b> Check the power PWB and the lamp control circuit on the MCU PWB. Use SIM 14 to clear the self diagnostic display.

Main code	Sub code		Details of trouble
H4	00	Content	Heat roller low temperature detection
		Detail	When the fusing temperature is lower than 150C° after 55sec from the start of warming up. When the warming up complete temperature is not reached in 30sec from reaching 150C°. When the fusing temperature is lower than 100C° after 20sec from ready start. When the fusing temperature is lower than 145C° when printing."
		Cause	Thermistor abnormality Heater lamp abnormality Thermostat abnormality Control PWB abnormality
		Check and remedy	Use SIM 5-02 to check the heater lamp blinking operation. <b>When the lamp blinks normally.</b> Check the thermistor and its harness. Check the thermistor input circuit on the control PWB. <b>When the lamp does not light up.</b> Check for disconnection of the heater lamp and the thermostat. Check the interlock switch. Check the power PWB and the lamp control circuit on the MCU PWB. Use SIM 14 to clear the self diagnostic display.
L1	00	Content	Scanner feed trouble
		Detail	The scanner does not complete feeding in the specified time.
		Cause	Mirror unit abnormality The scanner wire is disconnected. The origin detection sensor abnormality Mirror motor harness abnormality
		Check and remedy	Use SIM 1-1 to check the mirror reciprocating operations. <b>When the mirror does not feed.</b> Check for disconnection of the scanner wire. Check the harness and the connector between the mirror motor and the MCU PWB. Replace the mirror unit. Replace the MCU PWB. <b>When the mirror does feed.</b> Use SIM 1-2 to check the mirror home position sensor."
L3	00	Content	Scanner return trouble
		Detail	The scanner does not complete returning in the specified time. The mirror is not in the home position when OC copying is started with the mirror standby in the home position.
		Cause	Mirror unit abnormality Scanner wire disconnection Origin detection sensor abnormality Mirror motor harness abnormality
		Check and remedy	Use SIM 1-1 to check the mirror reciprocating operations. <b>When the mirror does not return.</b> Check for disconnection of the scanner wire. Check the harness and the connector between the mirror motor and the MCU PWB. Replace the mirror unit. Replace the MCU PWB. <b>When the mirror does feed.</b> Use SIM 1-2 to check the mirror home position sensor."

Main code	Sub code		Details of trouble
L4	01	Content	Main motor lock detection
		Detail	The main motor does not rotate. The motor lock signal is detected for 1sec or more after rotation of the main motor. The motor lock signal is detected for 1sec during rotation of the main motor.
		Cause	Main motor unit abnormality Improper connection or disconnection the main motor and the harness. MCU PWB abnormality
		Check and remedy	Use SIM 25-01 to check the main motor operations. Check connection of the main motor harness/connector. Replace the main motor. Replace the MCU PWB.
	11	Content	Shifter motor trouble
		Detail	The shifter home position detection signal is not detected when initializing the shifter.
		Cause	Shifter motor abnormality, improper connection or disconnection of the harness, shifter home position sensor abnormality
		Check and remedy	Use SIM 03-11 to check the shifter motor operations. Check connection of the harness/connector of the shifter motor. Replace the shifter motor. Replace the MCU PWB.
	L6	Content	Polygon motor lock detection
		Detail	The polygon motor does not rotate. The motor lock signal is detected for 6sec after rotation of the polygon motor. The motor lock signal is detected for 1sec during rotation of the polygon motor.
		Cause	Polygon motor unit abnormality Improper connection or disconnection of the polygon motor and the harness. MCU PWB abnormality
		Check and remedy	Use SIM 61-1 to check the polygon motor operations. Check connection of the polygon motor harness/connector. Replace the polygon motor.. Replace the MCU PWB.
L8	01	Content	No full wave signal
		Detail	The zero cross signal is not detected.
		Cause	Power unit abnormality MCU PWB abnormality
		Check and remedy	Check connection of the harness and connectors. Replace the MCU PWB. Replace the power unit.
U2	04	Content	EEPROM read/write error (Serial communication error)
		Detail	EEPROM access process error
		Cause	EEPROM abnormality
		Check and remedy	Check that the EEPROM is properly set. Use SIM 16 to cancel the trouble. Replace the MCU PWB.

Main code	Sub code		Details of trouble
U2	11	Content	Counter check sum error (EEPROM)
		Detail	Check sum error of the counter area in the EEPROM
		Cause	EEPROM abnormality
		Check and remedy	Check that the EEPROM is properly set. Use SIM 16 to cancel the trouble. Replace the MCU PWB.
	12	Content	Adjustment value check sum error (EEPROM)
		Detail	Check sum error of the adjustment value area in the EEPROM
		Cause	EEPROM abnormality
		Check and remedy	Check that the EEPROM is properly set. Use SIM 16 to cancel the trouble. Replace the MCU PWB.
	40	Content	CRUM chip communication error
		Detail	An error occurs during communication between the MCU and the CRUM chip.
		Cause	CRUM chip abnormality Developing unit disconnection MCU PWB abnormality
		Check and remedy	Replace the chip. Check installation of the developing unit. Use SIM 16 to cancel the trouble. Replace the MCU PWB.
--		Content	Auditor NOT READY
		Detail	
		Cause	
		Check and remedy	
CH ON	None	Content	Side door open
		Detail	The side door is open.
		Cause	Side door sensor abnormality MCU PWB abnormality
		Check and remedy	Check that all the side doors are closed. Replace the MCU PWB.
CH Blink	None	Content	Developing cartridge not installed
		Detail	The developing cartridge is not installed. Communication with the CRUM cannot be made in initial check of the CRUM.
		Cause	Developing unit disconnection MCU PWB abnormality CRUM chip abnormality
		Check and remedy	Check installation of the developing unit. Replace the MCU PWB.

# [10] MAINTENANCE

## 1. Maintenance table

X:Check(Clean, adjust, or replace when required.) O:Clean ▲:Replace △:Adjust ☆:Lubricate

Unit name		Part name	When calling	50K	100K	150K
Drum peripheral	OPC drum		-	▲	▲	▲
	Cleaning blade		-	▲	▲	▲
	Side seal F/R		X	X	X	X
	MC unit		X	▲	▲	▲
	(MC charging electrode)		-	(▲)	(▲)	(▲)
	(MC grid)		-	(▲)	(▲)	(▲)
	(MC case)		-	(▲)	(▲)	(▲)
	Transfer wire		O	O	O	O
	Transfer paper guide		O	O	O	O
	MC guide sheet (Cleaning blade attached)		-	▲	▲	▲
	Drum fixing plate B		X	▲	▲	▲
	Process frame unit		X	X	X	▲
	Discharge holder		O	O	O	O
	Separation pawl Star ring x 2 pcs		} Only for Viet Nam	X	▲	▲
Developing section	Developer		-	▲	▲	▲
	DV seal		-	X	X	▲
	DV under seal		-	-	-	▲
	DV side seal		-	X	X	▲
	Side Mylar		-	-	-	▲
Optical section	Lamp unit	Reflector	O	O	O	O
		Mirror	O	O	O	O
	No.2/3 mirror unit	Mirror	O	O	O	O
		Pulley	X	X	X	X
	CCD peripheral	Lens	O	O	O	O
	Glass	Table glass	O	O	O	O
		White Plate	O	O	O	O
	Other	Drive wire	X	X	X	X
		Rail	X ☆	X ☆	X ☆	X ☆
		Document cover	O	O	O	O
		Document size sensor	O	O	O	O
LSU		Dust-proof glass	O	O	O	O
Paper feed section	Multi paper feed section	Take-up roller(manual / SPF)	O	O	O	O
		Paper feed roller	O	O	O	O
		Spring clutch	O ☆	O ☆	O ☆	O ☆
Paper transport section		PS roller	O	O	O	O
		Transport (paper exit) rollers	O	O	O	O
		Spring clutch	O ☆	O ☆	O ☆	O ☆
Fusing section		Upper heat roller	O	O	O	▲
		Pressure roller	O	O	O	O
		Pressure roller bearing	X	X	X	O ☆
		Upper separation pawl	X	X	X	O
		Lower separation pawl	X	X	X	O
Drive section		Gears	X ☆	X ☆	X ☆	X ☆
		Belts	X	X	X	O
Paper exit section		Ozone filter*1	X	X	X	X*1

\*1:Recommendable replacement time:50K(Letter,5%print)

## 2. Maintenance display system

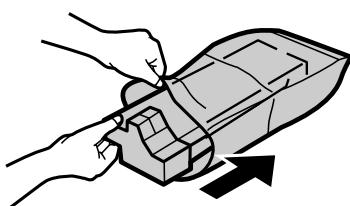
Toner	Life,	16K	
	Remaining quantity check *1	a. Press and hold the density adjustment LIGHT key for more than 5 sec, and the machine will enter the user program mode. b. Press and hold the "%" key for more than 5 sec, and the remaining quantity will be displayed on the copy quantity display in one of the following levels: (Remaining quantity display levels: 100%, 75%, 50%, 25%, 10%, LO) c. Press the density adjustment LIGHT key to cancel.	
	Remaining quantity	NEAR EMPTY About 10%	EMPTY
	LED	ON	Flash
Developer	Machine	Operation allowed	Stop
	Life	50K	
	LED	ON at 50K of the developer count	
Maintenance	Machine	Selection is available between Not Stop and Stop by Service Simulation (SIM 26-37) Setup. (If Stop is selected, the LED will flash and stop at 50K.) * Default: Not Stop * Clear: SIM 42-1	
	LED	Selection is available among 50K, 25K, 10K, 7.5K, 5K, and free (no lighting) with SIM 21-1. * Default: 50K * Clear: SIM 20-1	
	Machine	Not stop	

\*1: Installation of a new toner cartridge allows to display the remaining quantity.

## 3. Note for replacement of consumable parts

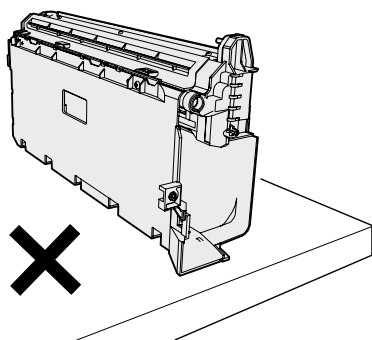
### A. Toner cartridge

When a waste toner cartridge is removed from the machine, it must be put in a polyethylene bag to avoid scattering of toner.

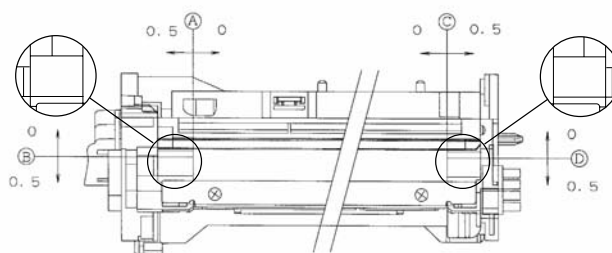


### B. DV cartridge

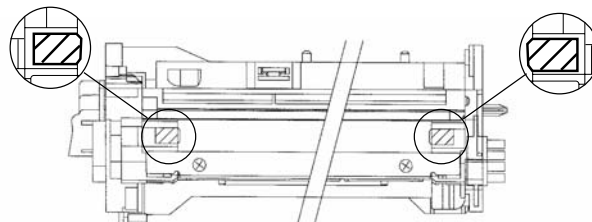
Do not shake or put up the developer cartridge. Otherwise developer may scatter.



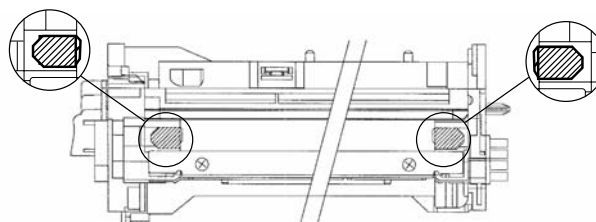
### C. DV seal attachment procedure



- 1) When attaching the DV side Mylar, check the position shown in the figure below and attach it properly.



- 2) When attaching the DV side sheet, check the position shown in the figure below and attach it properly. (First of all, attach the DV side Mylar.)



- \* Be sure to attach the DV side sheet so that the notch is on the outside.

## [11]DISASSEMBLY AND ASSEMBLY

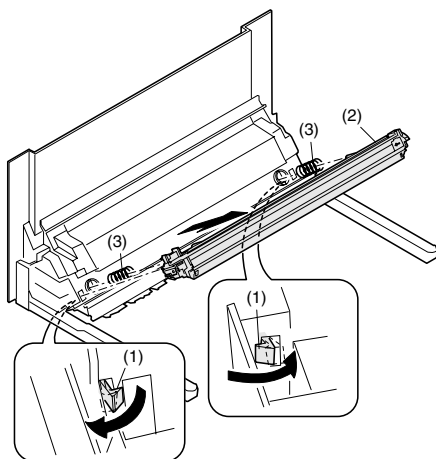
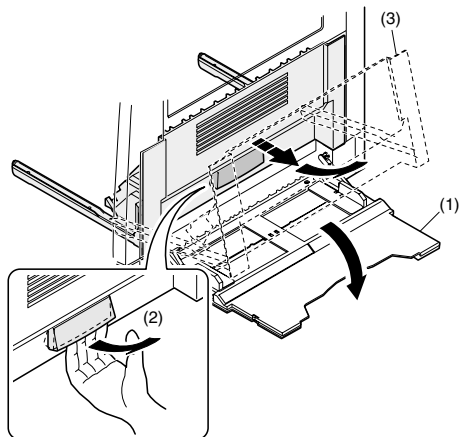
**WARNING** Before performing the disassembly procedure, be sure to remove the power cord to prevent against an electric shock.

No.	Item
1	High voltage section/Duplex transport section
2	Optical section
3	Fusing section
4	Paper exit section
5	MCU
6	Optical frame unit
7	LSU
8	Tray paper feed section/Paper transport section
9	Manual multi paper feed section
10	Power section
11	Developing section
12	Process section
13	Others

### 1. High voltage section/Duplex transport section

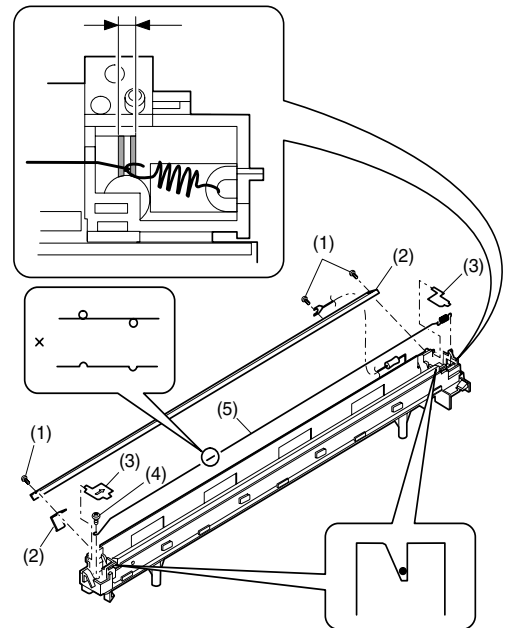
No.	Content
A	Transfer charger unit
B	Charger wire
C	Duplex transport section

#### A.Transfer charger unit

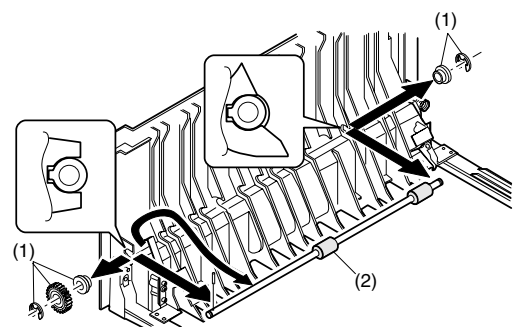
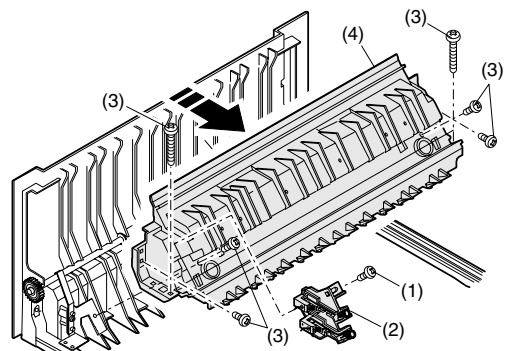


#### B.Charger wire

**Installation:** The spring tip must be between two reference ribs.  
 •The charger wire must be free from twist or bending.  
 •Be sure to put the charger wire in the V groove.



#### C.Duplex transport section

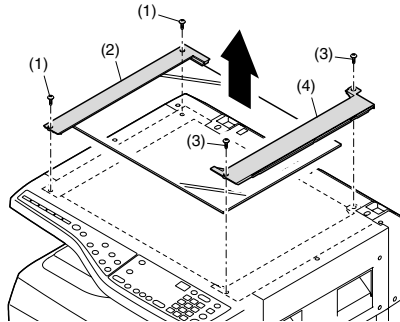


## 2.Optical section

Note: When disassembling or assembling the optical unit, be careful not to touch the mirror and the reflector.

No.	Content
A	Table glass
B	Copy lamp unit
C	Inverter PWB for copy lamp
D	Copy lamp
E	Lens unit
F	Wire

### A.Table glass

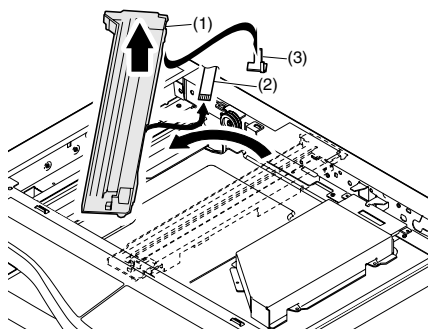
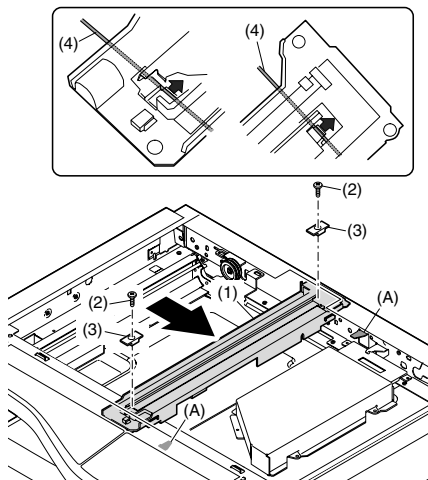


### B.Copy lamp unit

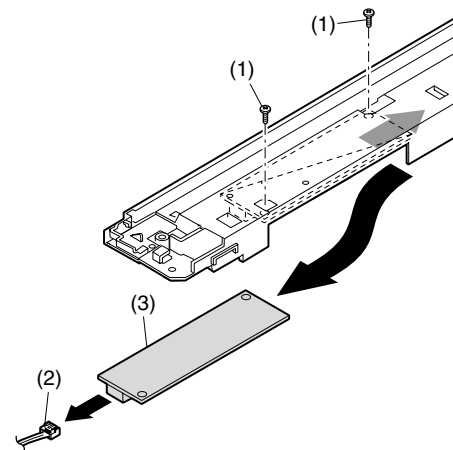
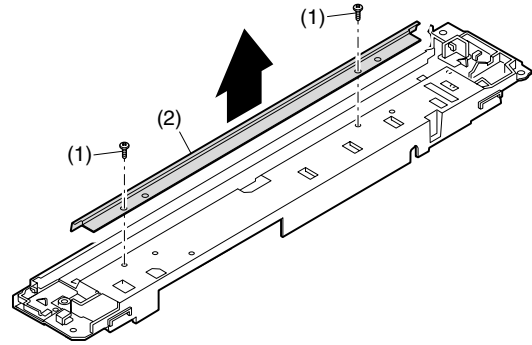
Disassembly: Be sure to put No. 2/3 mirror unit to the positioning plate (A).

Assembly: Put the notched surface of wire holder (3) downward, tighten temporarily, and install.

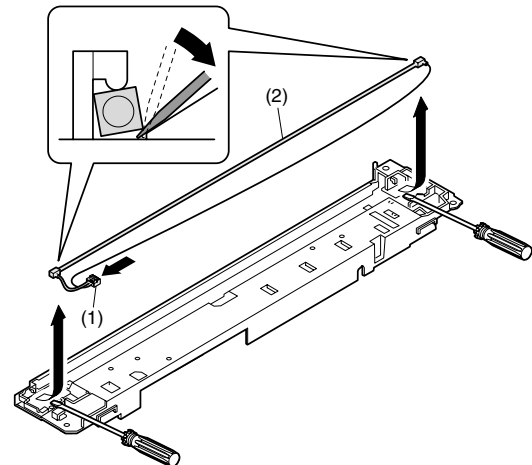
Adjustment: Main scanning direction distortion balance adjustment



### C.Inverter PWB for copy lamp



### D.Copy lamp



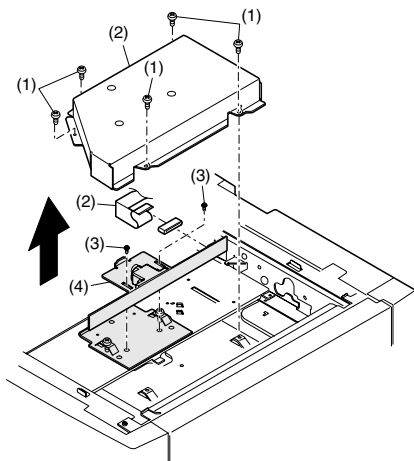
## E.Lens unit

Note: Do not remove screws which are not indicated in the figure. If the height of the base plate is changed, it cannot be adjusted in the market.

Note: The CCD/lens unit is factory-adjusted before shipping.

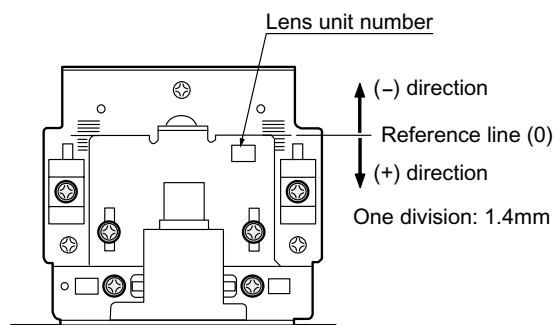
Since these adjustments cannot be performed in the market.

Never touch the screws other than screw 2) of the CCD/lens unit.



### Lens unit attachment

<1> Attach the lens unit so that the lens unit number on the lens adjustment plate is aligned with the scribe line on the base plate.



	CCD adjustment value
+4 scales	5.0~
+3 scales	3.6~4.9
+2 scales	2.2~3.5
+1 scale	0.8~2.1
Reference	-0.6~0.7
-1 scale	-2.0~ -0.7
-2 scales	-3.4~ -2.1
-3 scales	-4.8~ -3.5
-4 scales	~ -4.9

<2> Make a sample copy at the above position, and measure the magnification ratio.

<3> Change the installing position in the horizontal direction to adjust the magnification ratio.

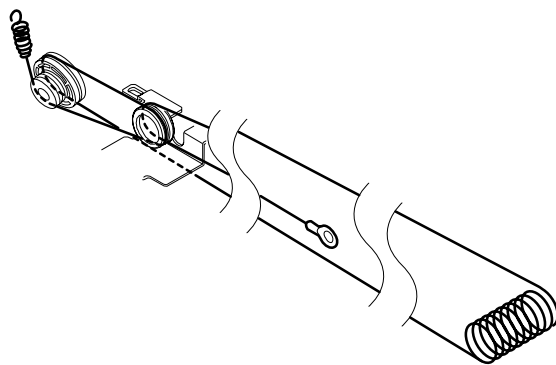
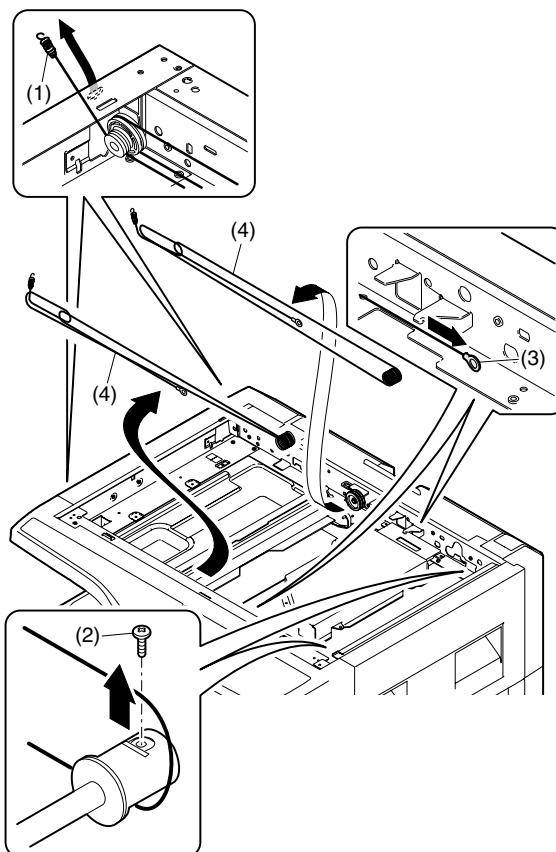
• When the copy image is longer than the original, shift to the positive (+) direction.

• When the copy image is shorter than the original, shift to the negative (-) direction.

\* 1 scale of the scribed line corresponds to 0.34% of magnification ratio.

\* If this adjustment is not satisfactory, make a fine adjustment with SIM 48-2.

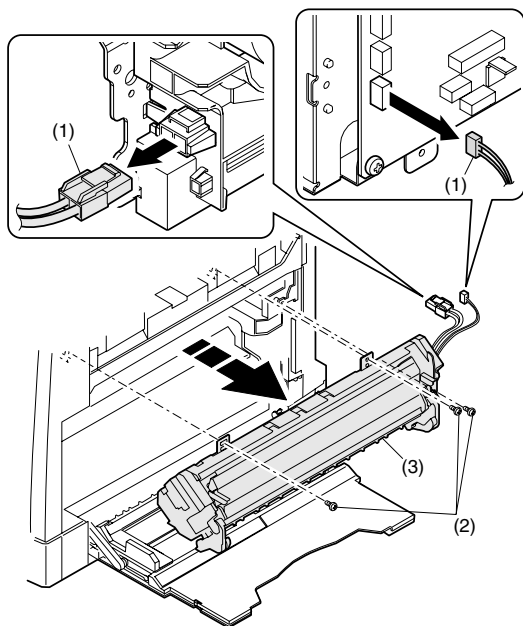
## F.Wire



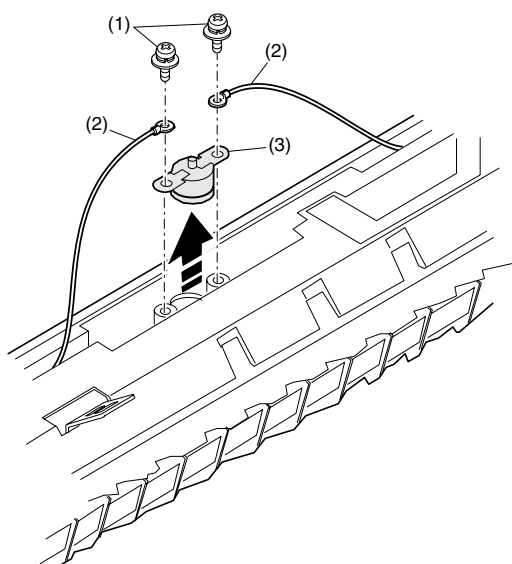
### 3.Fusing section

No.	Contents
A	Fusing unit
B	Thermostat
C	Thermistor
D	Heater lamp
E	Upper heat roller
F	Separation pawl
G	Lower heat roller
H	Separation pawl

#### A.Fusing unit removal

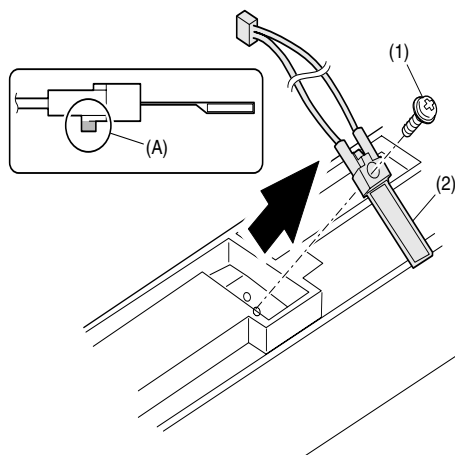


#### B.Thermostat



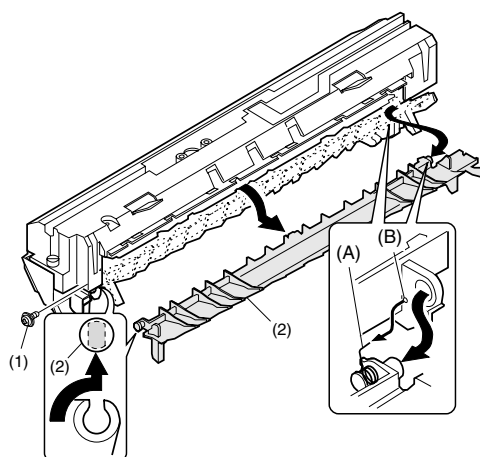
#### C.Thermistor

Installation: When installing the thermistor, be sure to face the installing projection (A) toward the installing surface.  
Check that the thermistor is in contact with the upper heat roller.

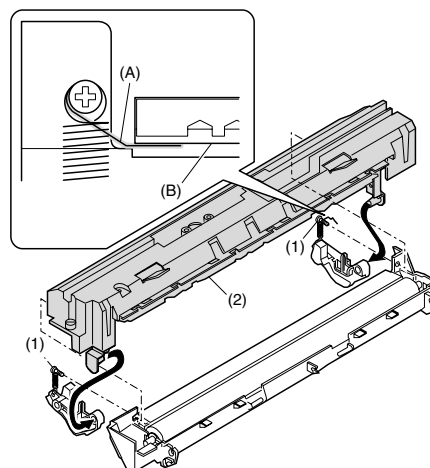


#### D.Heater lamp

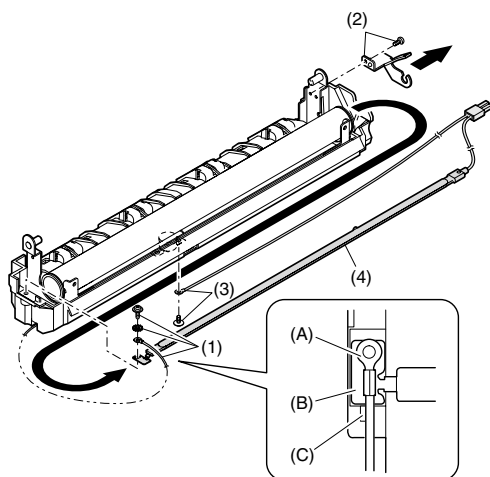
Assembly: Insert the spring (A) into the hole (B) in the fusing frame.



Assembly: Put the paper guide earth spring (A) under the paper guide (B) before fusing.



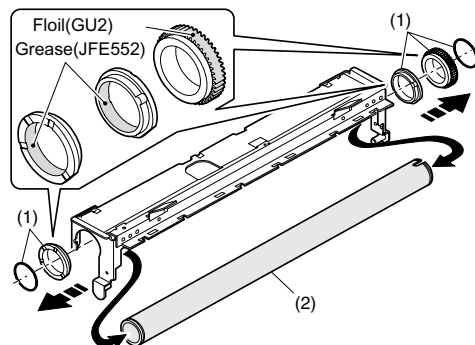
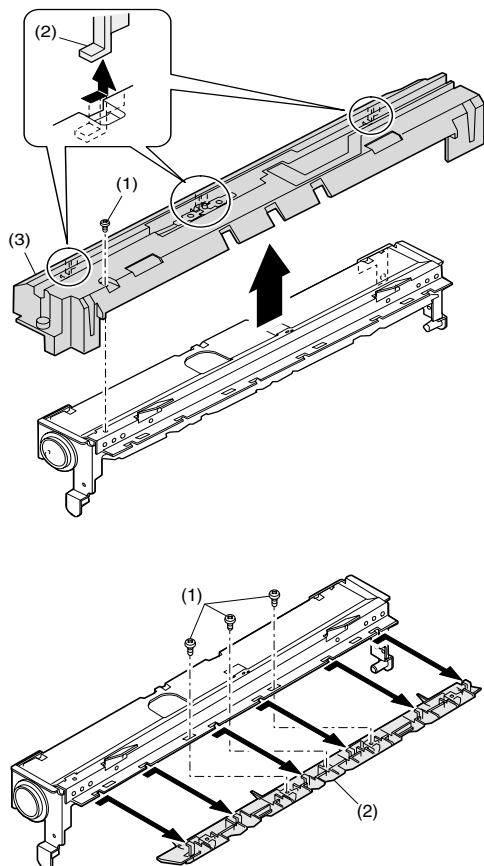




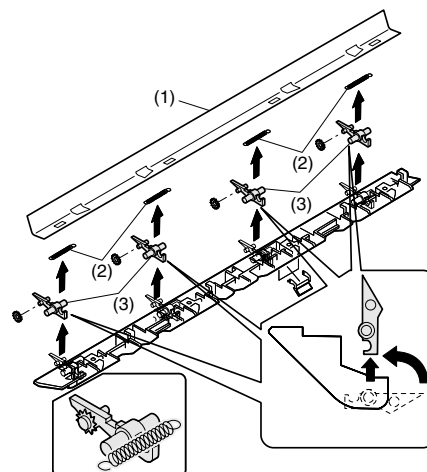
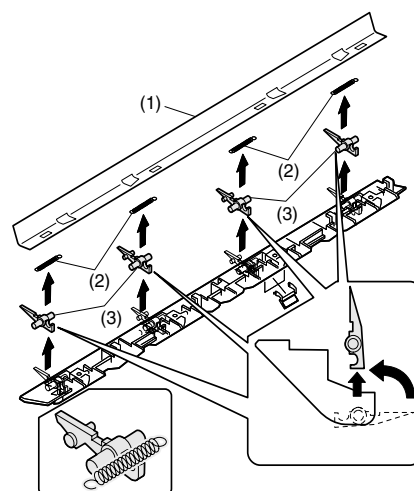
Assembly: Put the fusing harness (A) on the heater lamp (B) as shown in the figure and fix them together. Place the fusing harness inside the rib (C).

### E.Upper heat roller

Disassembly: There are three pawls on the fusing cover. Remove the screws and slide the fusing cover to the right to remove. The heater lamp is fixed on the fusing cover with a screw. Slide the fusing cover to the front and remove the screw, then remove the heater lamp.

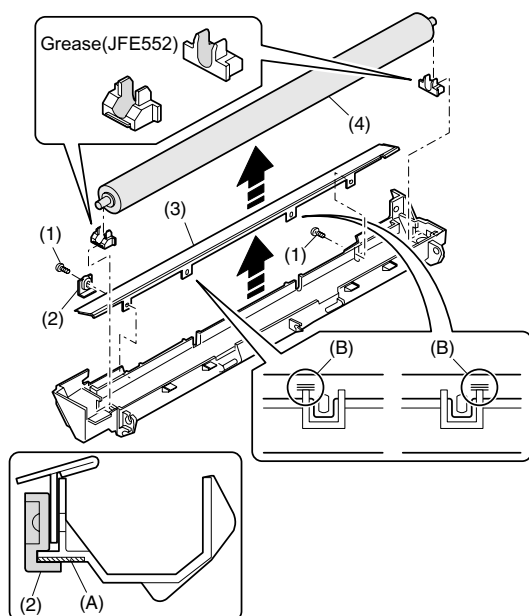


### F.Separation pawl

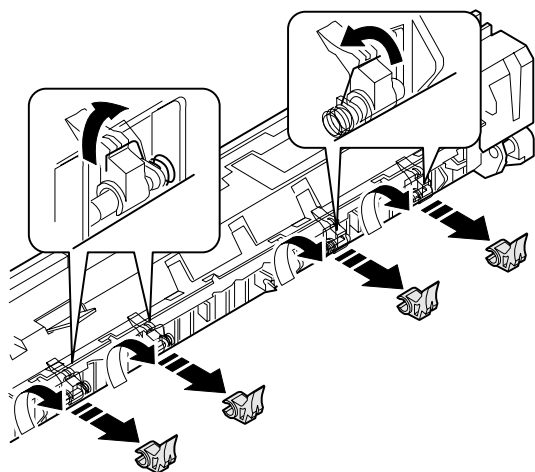


## G.Lower heat roller

**Assembly:** When installing the paper guide (3) before fusing, fix the paper guide fixing plate with screws temporarily so that the paper guide fixing plate (2) is in contact with the frame bottom under fusing (A). Set the paper guide (3) before fusing to the bottom line of the positioning reference (B), and tighten the screw firmly.



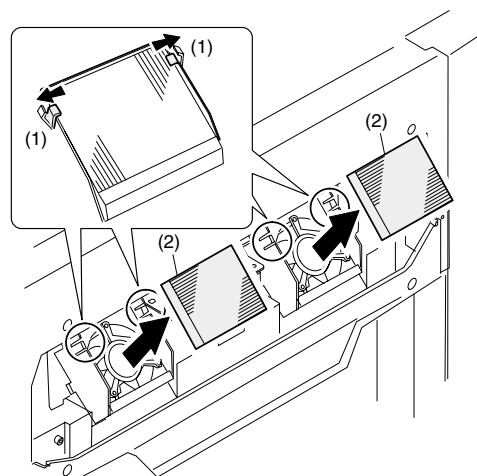
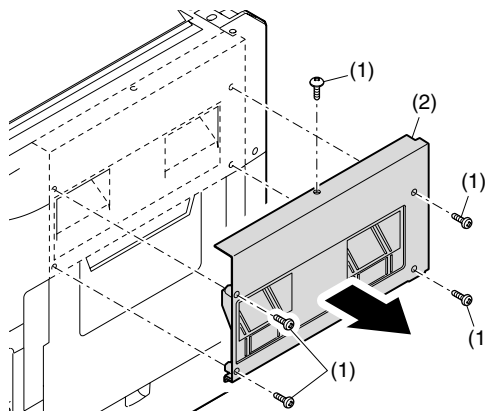
## H.Separation pawl



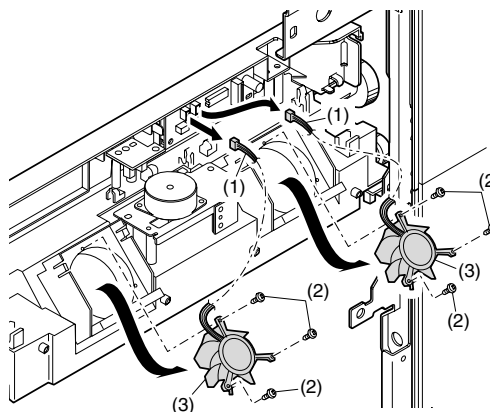
## 4.Paper exit section

No.	Content
A	Ozone filter
B	Cooling fan
C	Paper exit unit
D	Paper exit sensor / duplex sensor
E	Transport roller
F	Paper exit roller
G	Paper exit interface P.W.B.

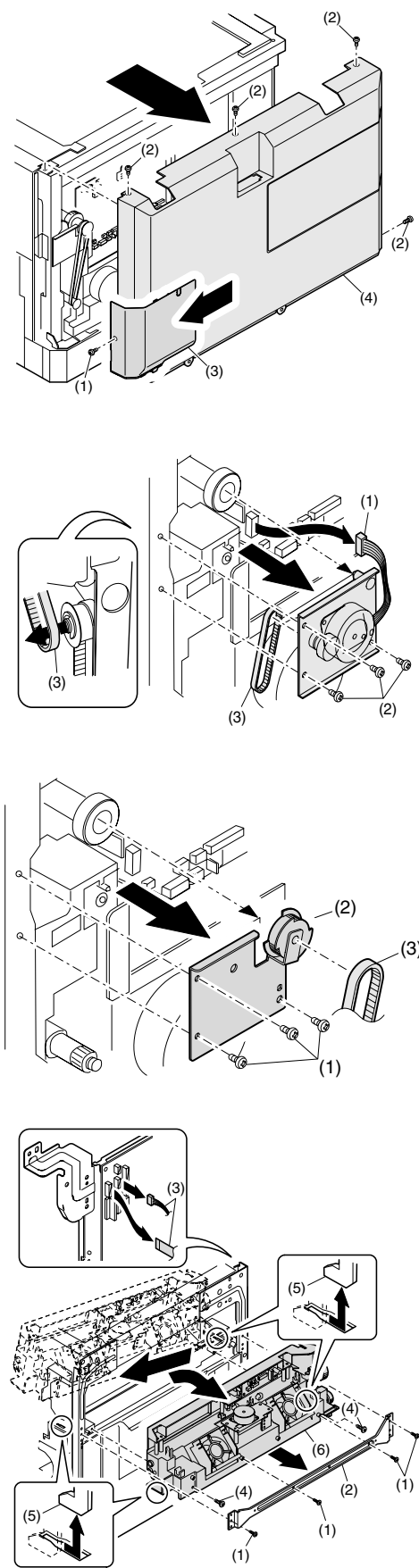
### A.Ozone filter



### B.Cooling fan

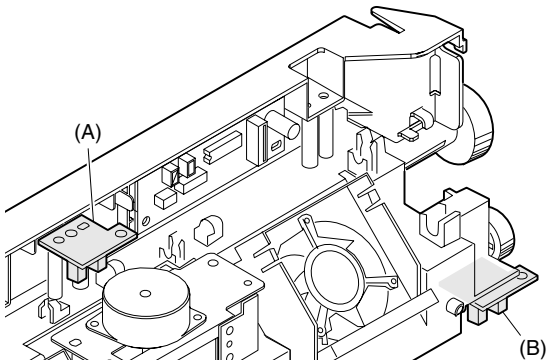


C.Paper exit unit

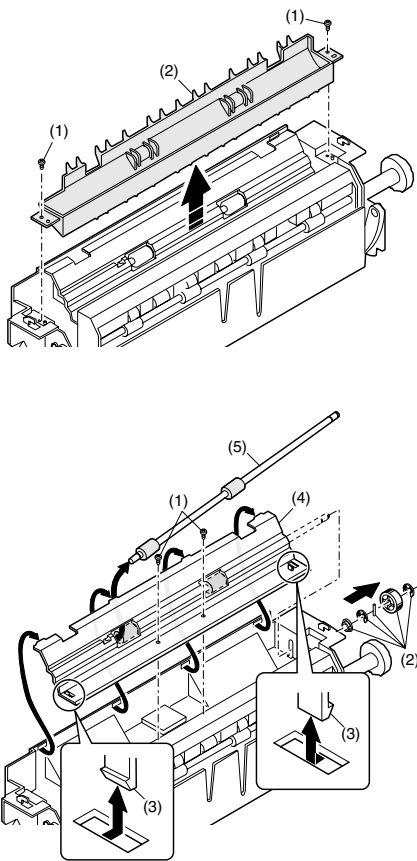


D.Paper exit sensor / duplex sensor

- (A)Exit sensor
- (B)Duplex sensor

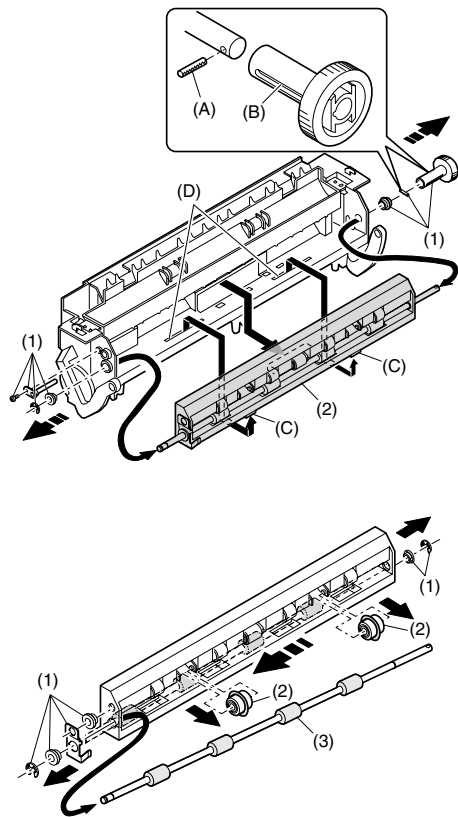


E.Transport roller

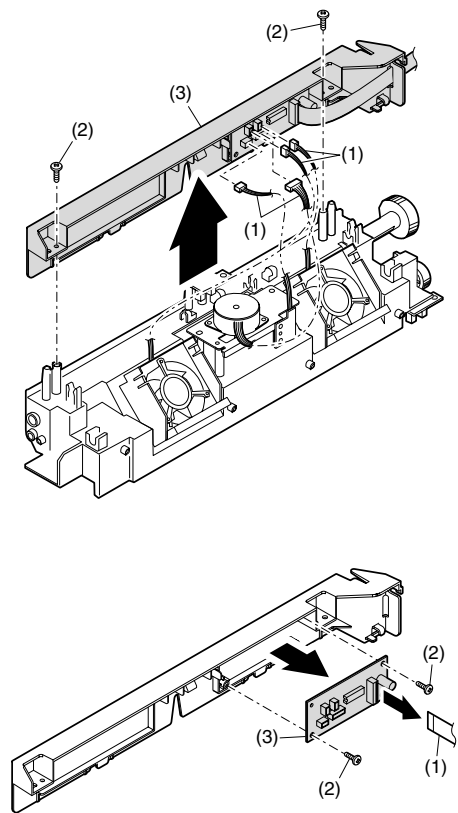


F.Paper exit roller

Assembly: Insert the spring pin so that the waveform (A) of the spring pin faces in the longitudinal direction of the paper exit drive gear long hole (B).<R>Be sure to insert two ribs (C) into the groove (D).



G.Paper exit interface P.W.B.

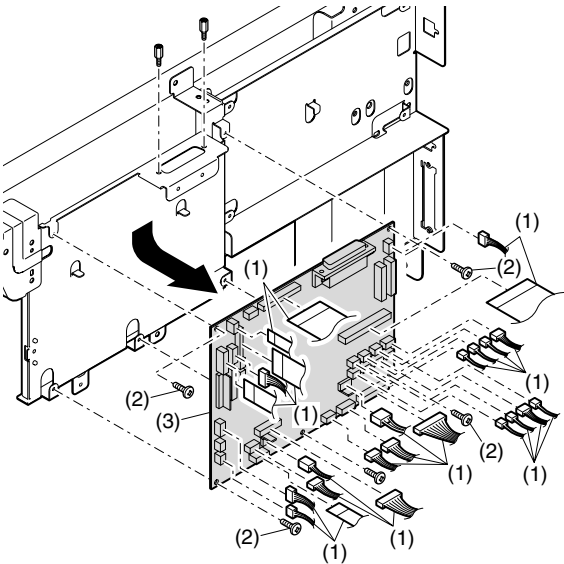


5.MCU

No.	Content
A	MCU disassembly

A.MCU disassembly

Note: When replacing the MCU PWB, be sure to replace the EEPROM of the MCU PWB to be replaced.



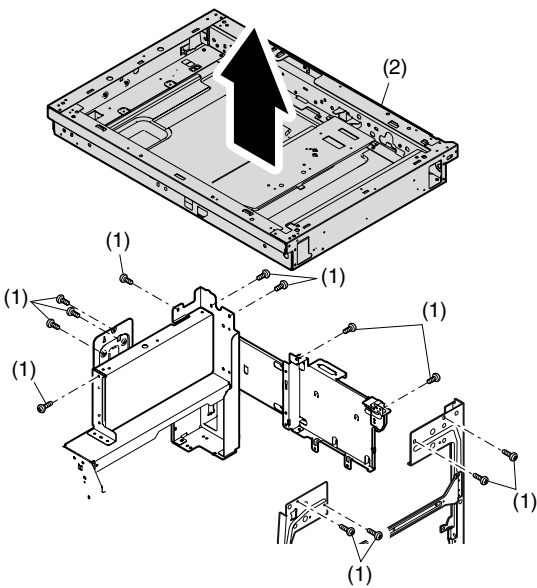
Note: When replacing the MCU PWB, be sure to restore the original jumper conditions.

6.Optical frame unit

No.	Content
A	Optical frame unit

A.Optical frame unit

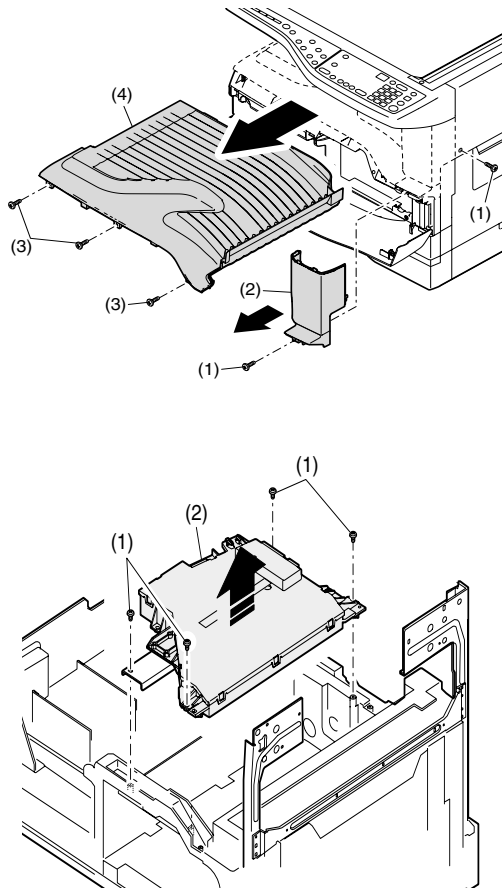
Installation: Install the optical unit in the sequence shown above.



7.LSU

No.	Content
A	LSU unit

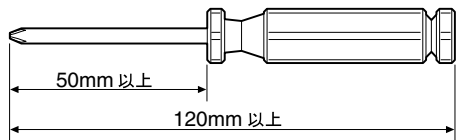
A.LSU unit



Note: Do not disassemble the LSU.  
Note: When replacing the LSU, be careful not to touch the dust-shield glass.

- Adjustment:
- Image lead edge position adjustment
  - Image left edge position adjustment
  - Paper off-center adjustment

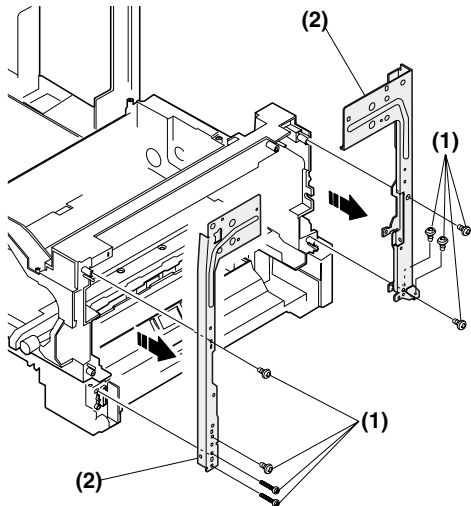
•Size of the screwdriver for removing the LSU



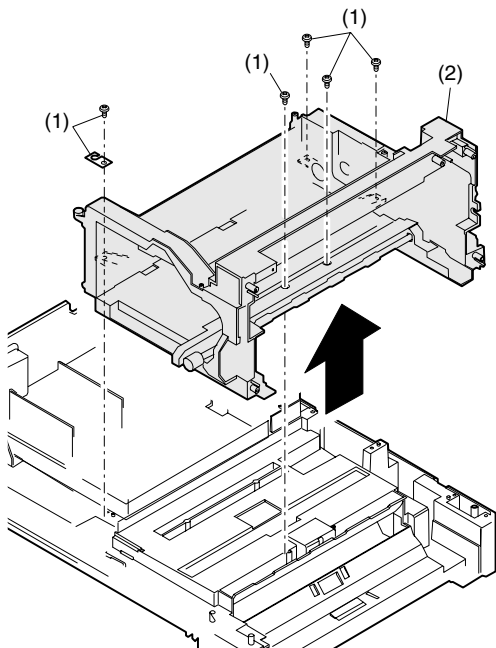
8. Tray paper feed section/Paper transport section

No.	Content
A	Interface frame unit
B	Drive unit
C	Solenoid (paper feed solenoid,, resist roller solenoid)
D	Resist roller clutch / Resist roller
E	Paper feed clutch/Paper feed roller (Semi-circular roller)

A.Intermittent frame unit

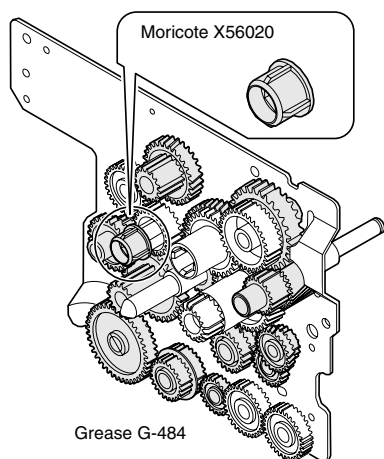
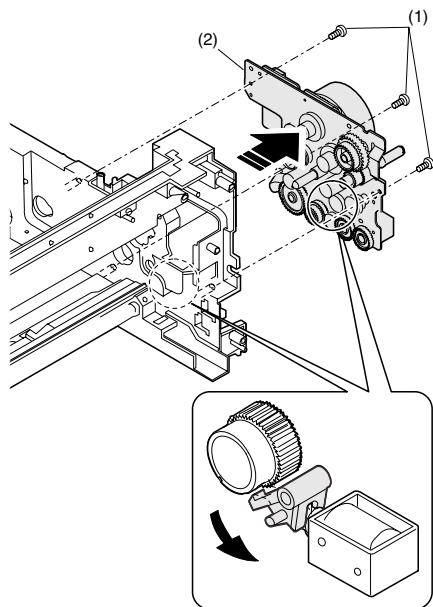


Assembly: Do not miss the door lock pawl.

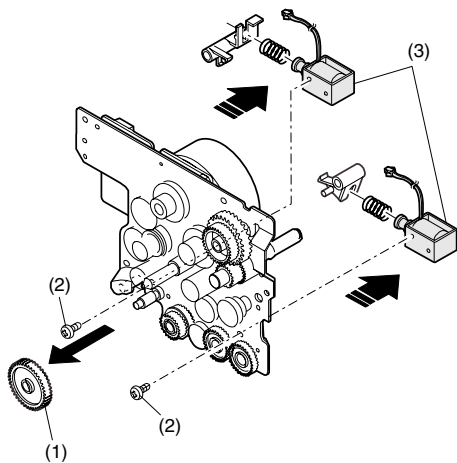


## B. Drive unit

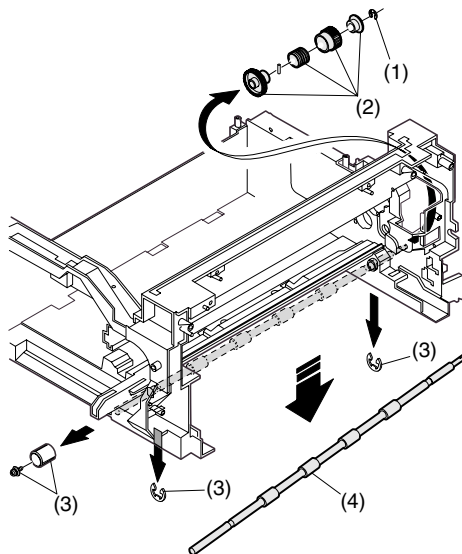
Assembly: Move down the clutch pawl as shown below, and avoid the clutch and install.



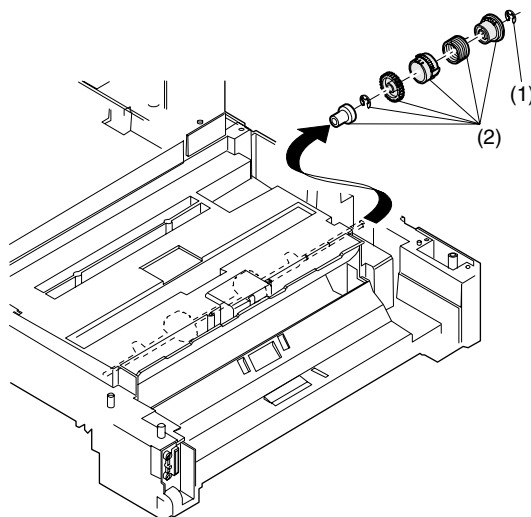
## C. Solenoid (paper feed solenoid, resist roller solenoid)



## D. Resist roller clutch/Resist roller



## E. Paper feed clutch/Paper feed roller (Semi-circular roller)

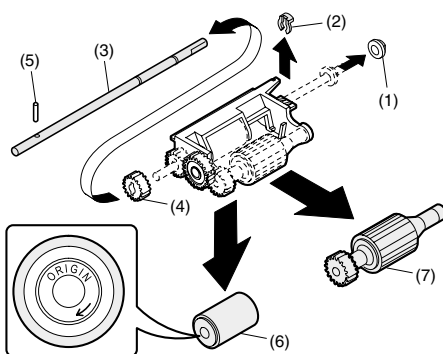
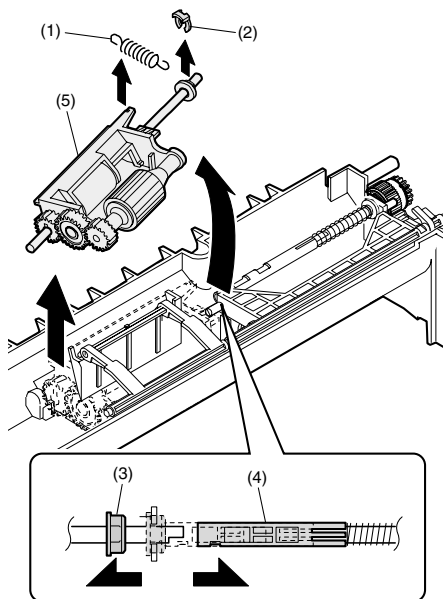
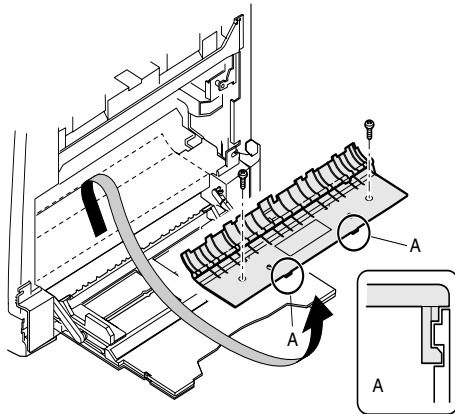


## 9.Manual multi paper feed section

No.	Content
A	Manual transport roller/Manual paper feed roller
B	Manual multi paper feed
C	Manual feed solenoid
D	Manual transport clutch
E	Pressure plate unit
F	Manual paper feed clutch

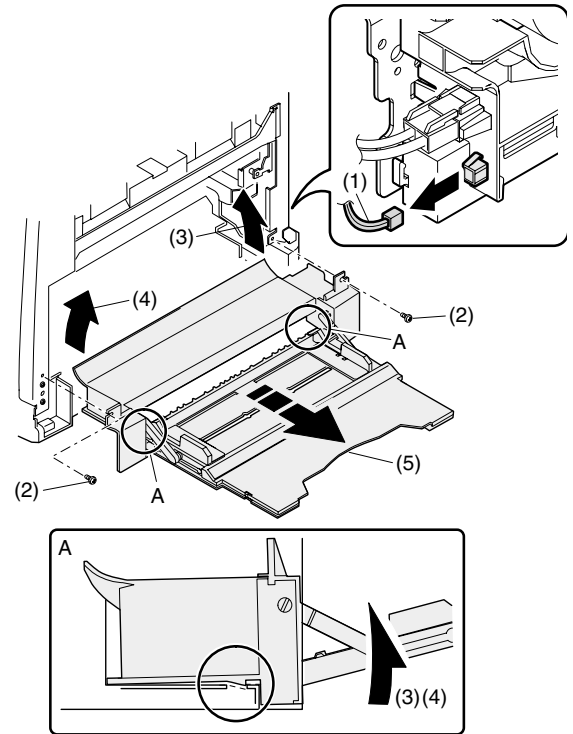
### A.Manual transport roller/Manual paper feed roller

Note: Push the lever at the right edge of the multi frame cover to the right upper side and remove it.

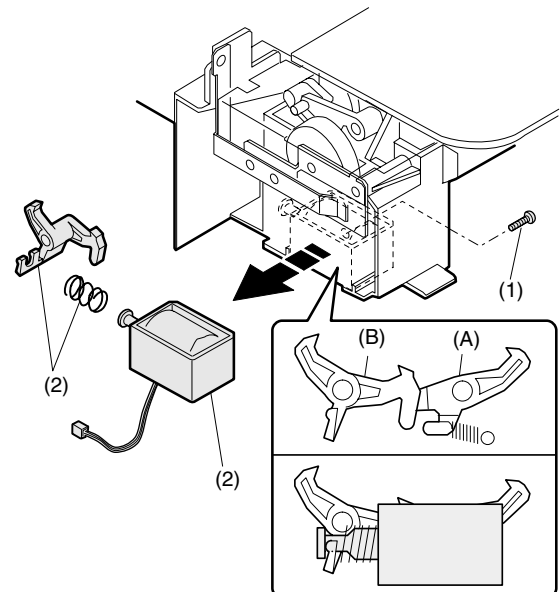


Installation: Be careful of the installing direction of the manual transport roller (6)

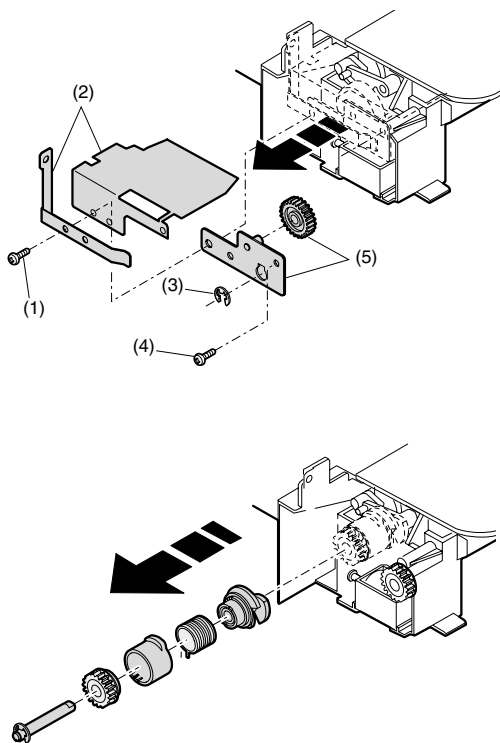
### B. Manual multi paper feed



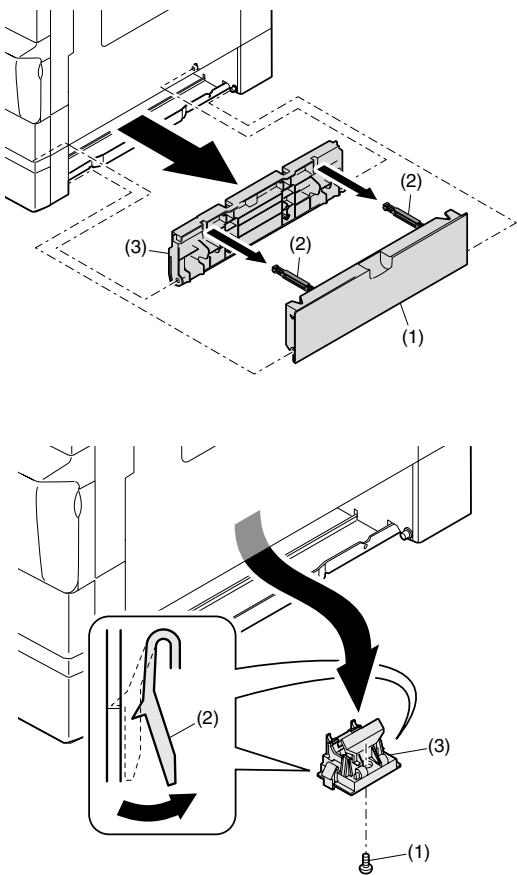
### C. Manual feed solenoid



## D. Manual transport clutch

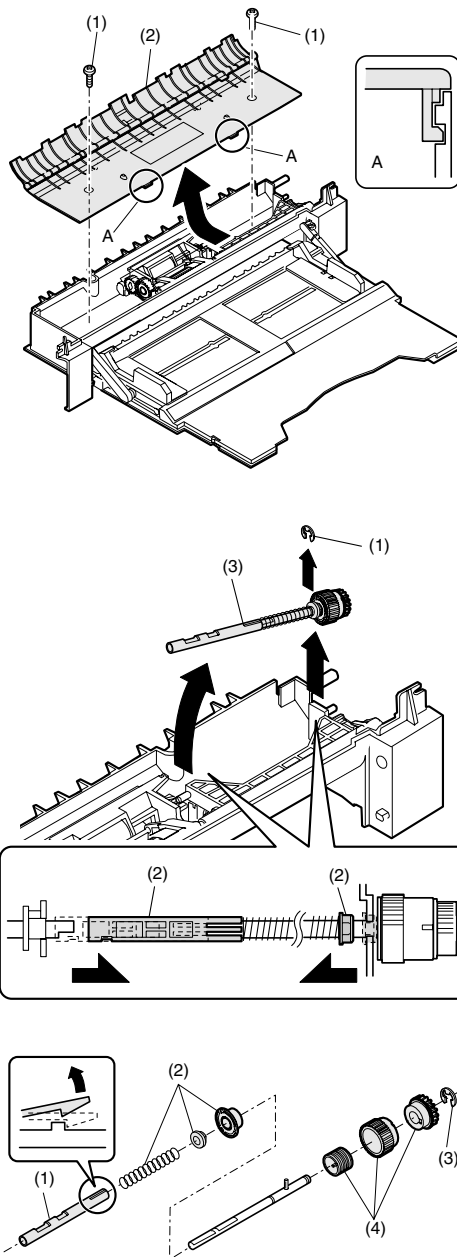


## E. Pressure plate unit



## F. Manual paper feed clutch

Note: Push the lever at the right edge of the multi frame cover to the right upper side and remove it.

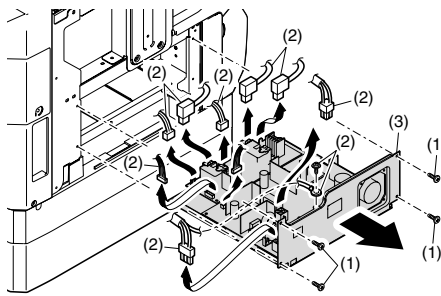
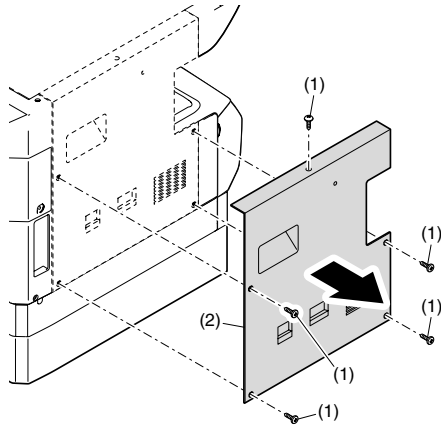




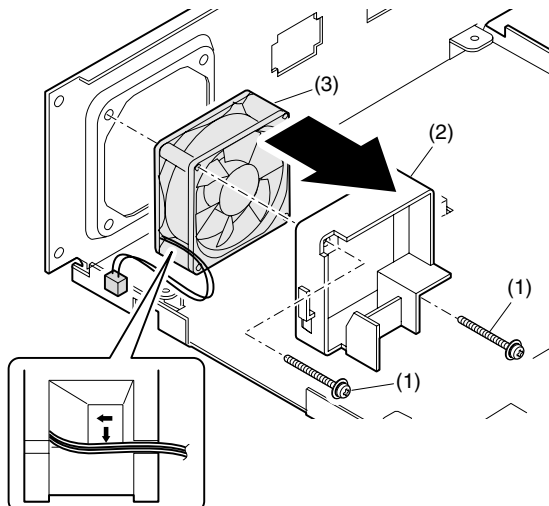
## 10.Power section

No.	Content
A	Power unit
B	Power fan
C	High voltage P.W.B.
D	Power P.W.B.
E	Power switch

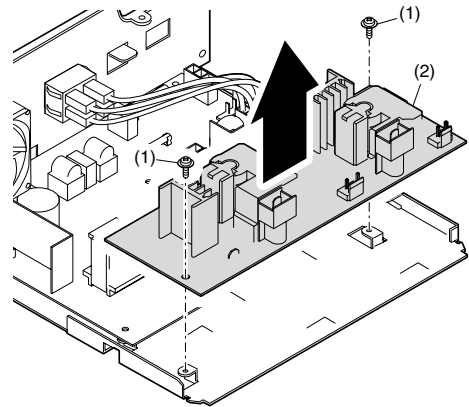
### A.Power unit



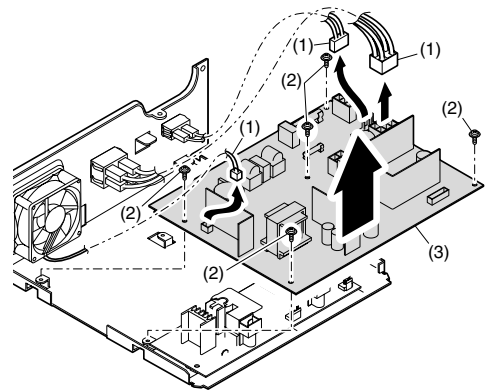
### B. Power fan



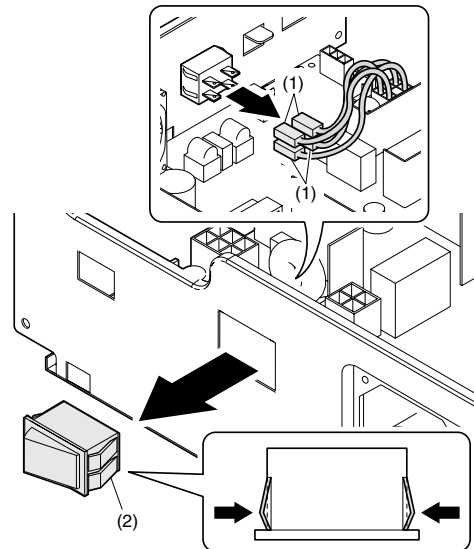
### C. High voltage P.W.B.



### D. Power P.W.B.



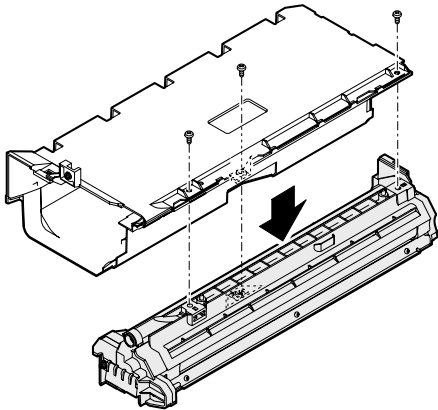
### E. Power switch



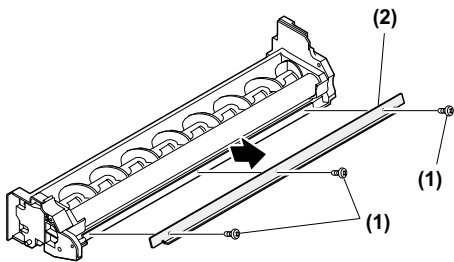
11.Developing section

No.	Contents
A	Developing box
B	Developing doctor
C	MG roller

A.Developing box

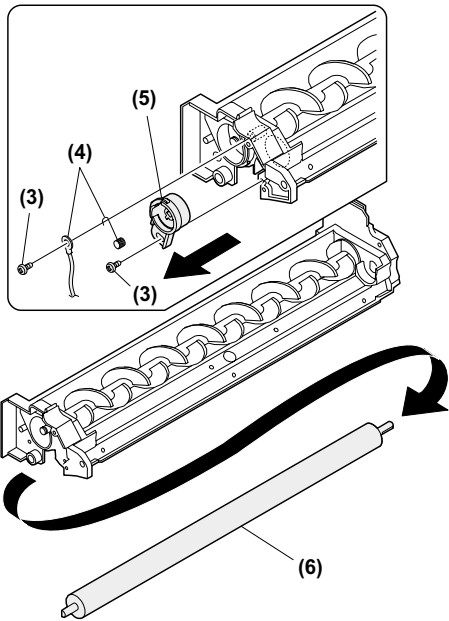
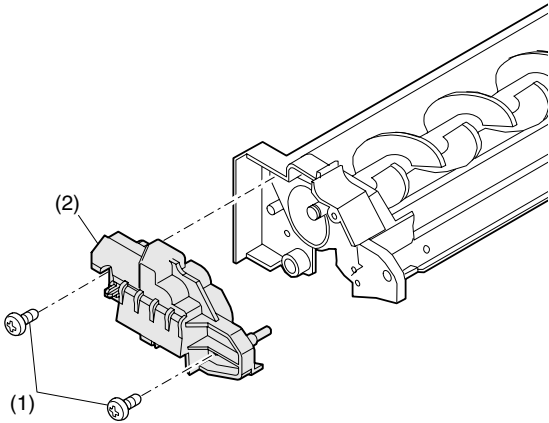


B.Developing doctor



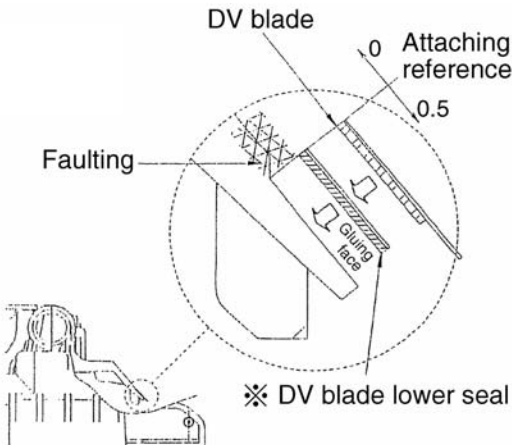
Adjustment: Developing doctor gap adjustment

C.MG roller



Adjustment: MG roller main pole position adjustment

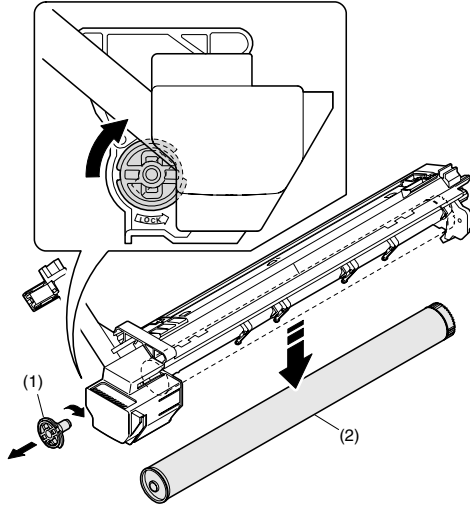
Note: Attach it to fit with the attachment reference when replacing the DV blade.



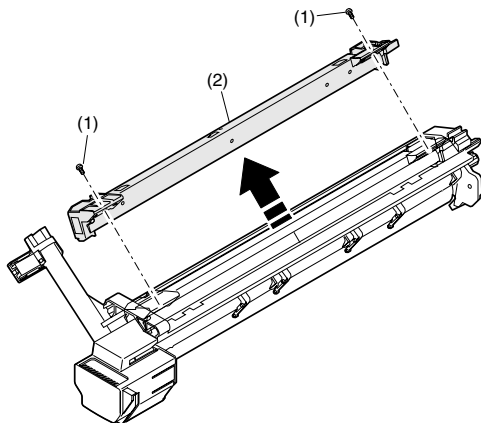
## 12.Process section

No.	Contents
A	Drum unit
B	Main charger unit
C	Cleaning blade

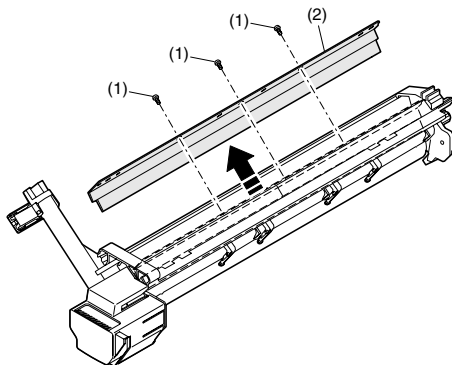
### A.Drum unit



### B. Main charger unit



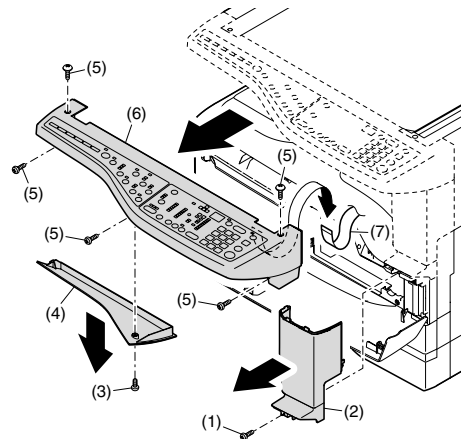
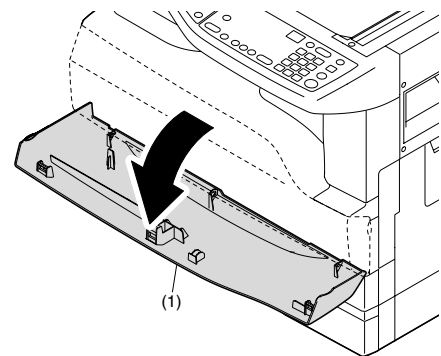
### C.Cleaning blade

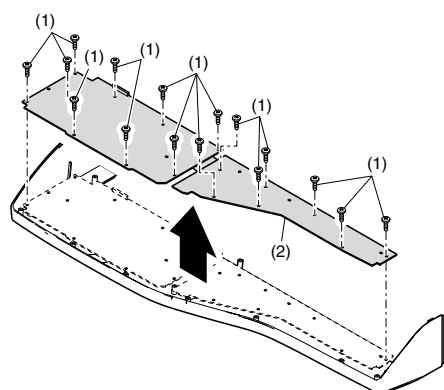
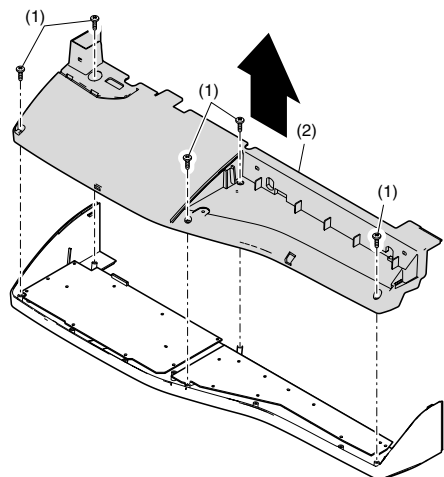


## 13.Others

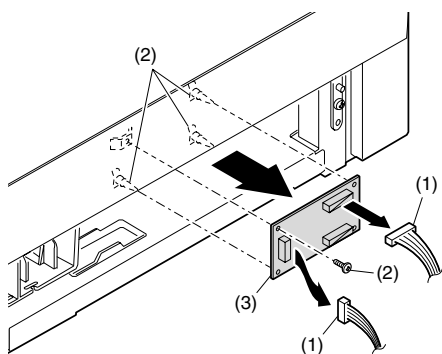
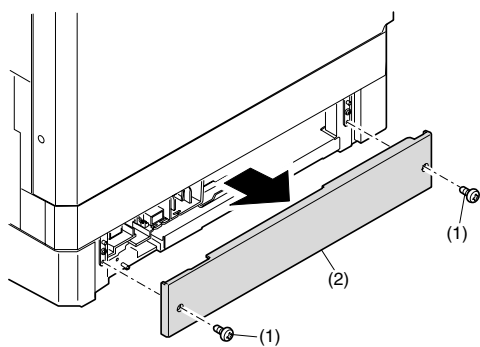
No.	Contents
A	Operation P.W.B.
B	Tray interface P.W.B.
C	2nd tray paper entry sensor / Paper empty sensor
D	2nd tray paper feed solenoid / Transport solenoid
E	2nd tray transport clutch
F	2nd tray transport roller
G	2nd tray paper feed clutch
H	2nd tray paper feed roller
I	Main motor
J	I/F P.W.B.
K	Paper entry sensor
L	Paper empty sensor
M	Paper feed roller

### A. Operation P.W.B.

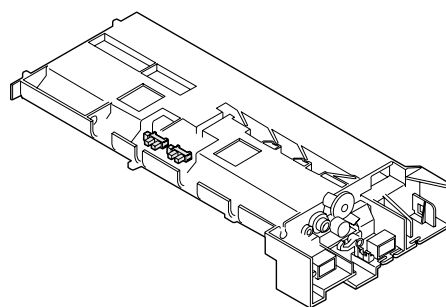
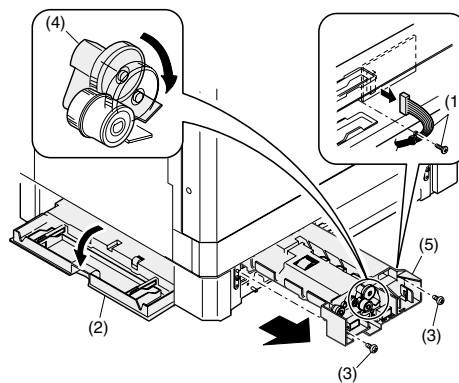




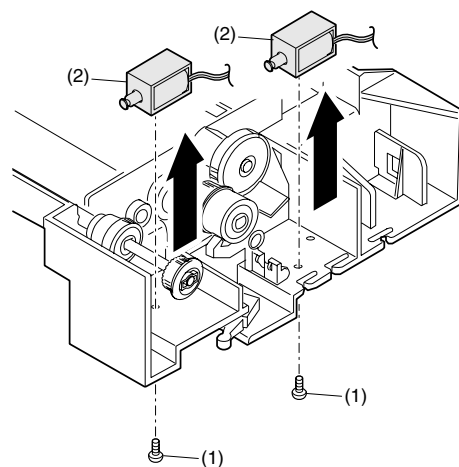
## B. Tray interface P.W.B.



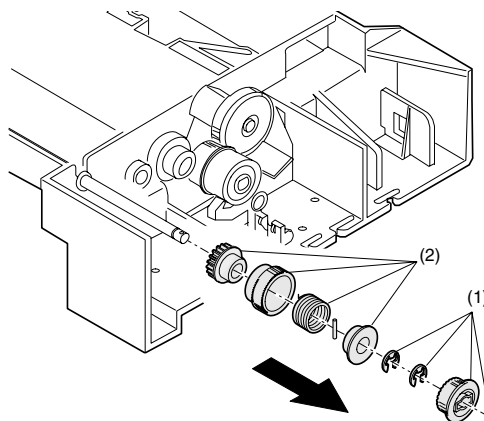
## C. 2nd tray paper entry sensor / Paper empty sensor



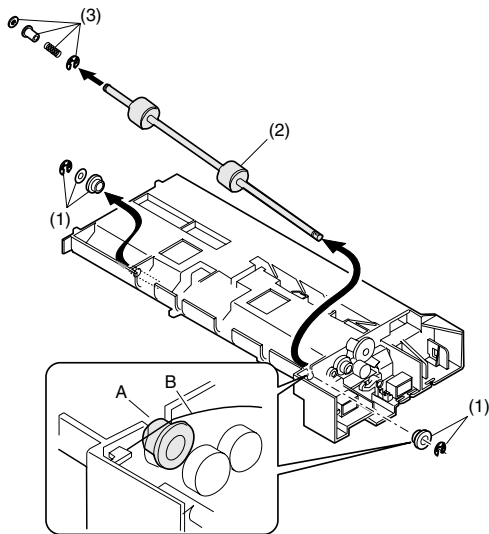
## D. 2nd tray paper feed solenoid / Transport solenoid



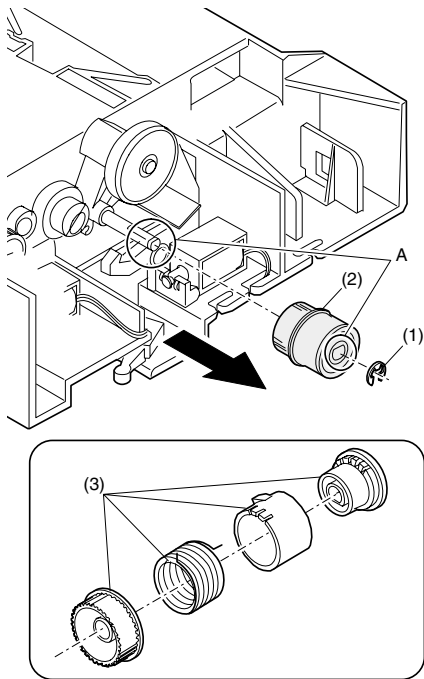
## E. 2nd tray transport clutch



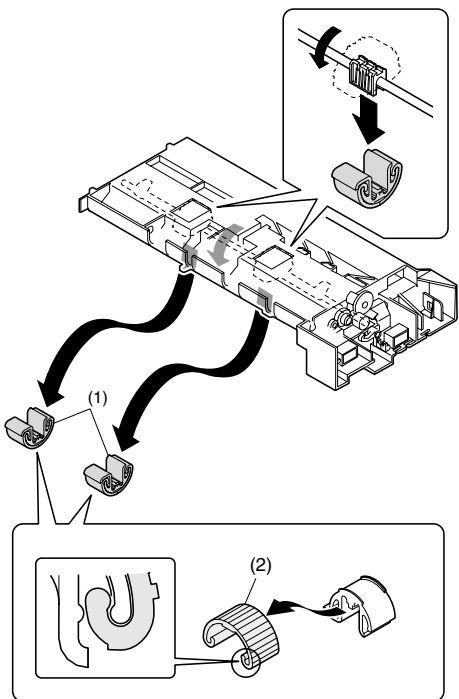
F. 2nd tray transport roller



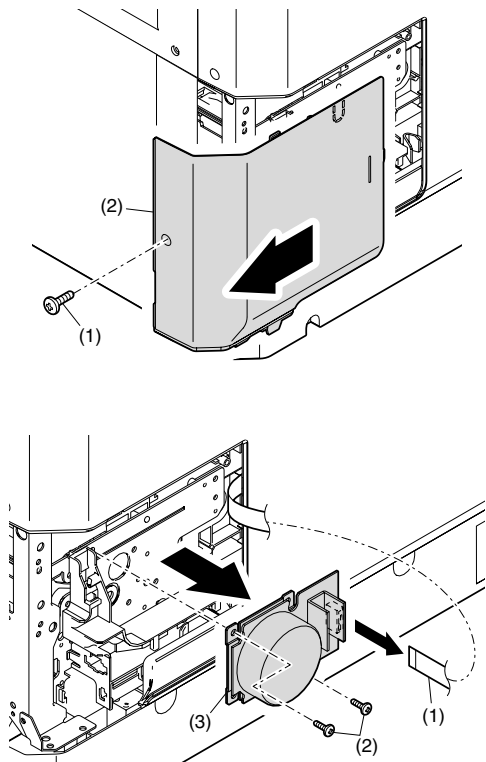
G. 2nd tray paper feed clutch



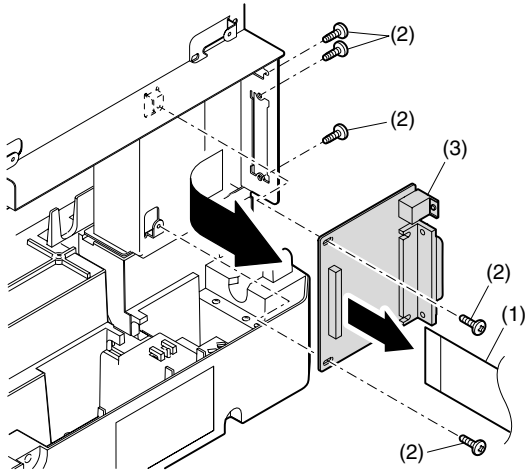
H. 2nd tray paper feed roller



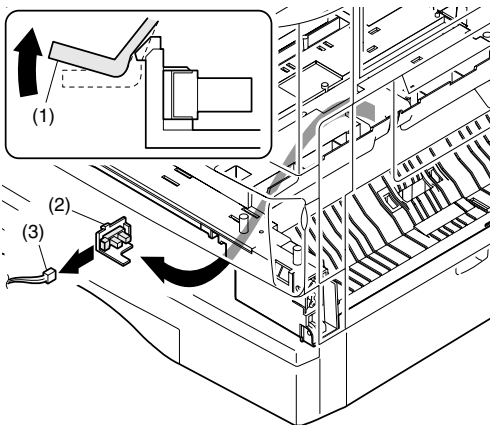
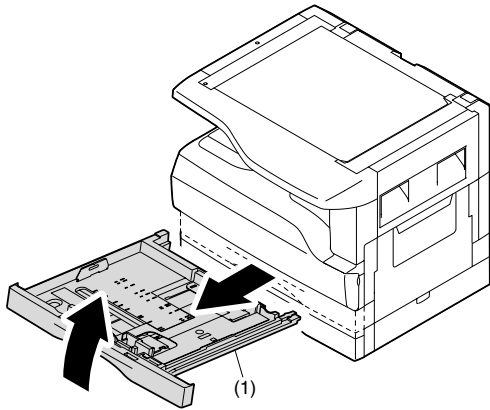
I. Main motor



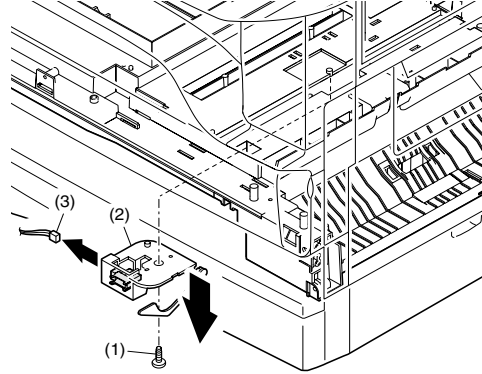
## J. I/F P.W.B.



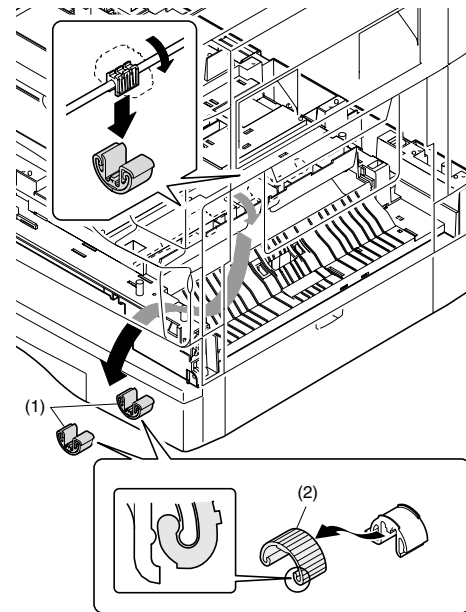
## K. Paper entry sensor



## L. Paper empty sensor



## M. Paper feed roller



\* When removing the paper feed roller, operate the paper feed clutch with SIM 6-1, and keep the paper feed roller down as shown in the figure above for operation.

# [12]FLASH ROM VERSION UP PROCEDURE

## 1.Preparation

Write the download data (the file with the extension dwl) to the main body of AR-M205/M160.

### Necessary files for download

- Maintenance.exe (Maintenance software)
- ProcPegasus.mdl
- ProcPegasus.ini
- ProcPegasus.fmt
- Pegasus.inf
- Usbscan.sys
- Download file:\*\*\*.dwl

<Note>

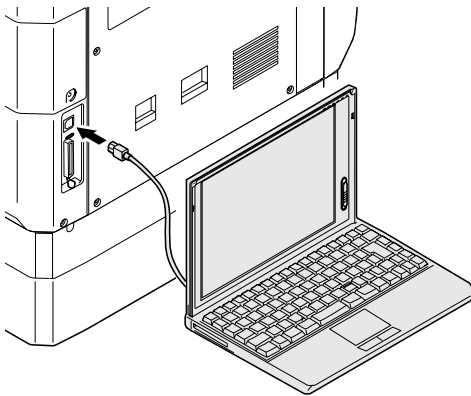
- The Download file(\*\*\*.dwl ) and the like that are to be downloaded should be copied, in advance, into folders that have a maintenance program.
- When creating a folder for a maintenance tool in the PC, be sure that no lengthy folder name is included in the path.

(Example)

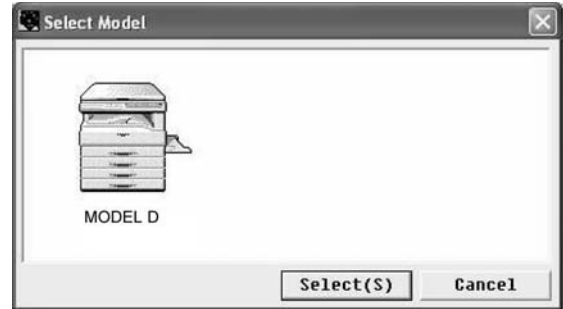
Incorrect c:\Maintenance Download Tool  
Correct c:\Maintenance\Downtool

## 2.Download procedure

- 1) Main body side:  
Executable by performing the Service Simulation No. 49-01 (Flash Rom program-writing mode).  
(A word "d" appears on the operation panel to denote the download mode status. )
- 2) Connect the PC and the main body with the download cable (USB cable).  
(Be sure to use a USB cable for connection. USB2.0 of the AR-EB7 is not applicable.)

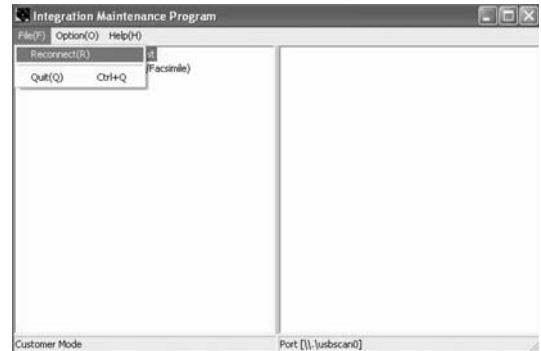


- 3) PC side:  
Boot the maintenance program. Select the model icon.



<Sample display>

- 4) PC side:  
Confirm that the "Simulation Command List" tree is displayed on the maintenance program.
- 5) PC side:  
When the message "the main body has not got started running" is displayed on the lowest area of the figure below after the "maintenance program" is started up, select the "File" and then "Reconnect" in the menu bar.

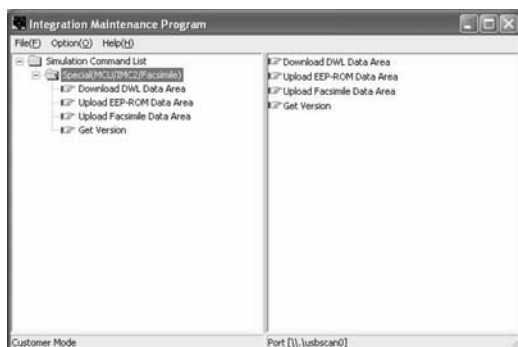


- 6) PC side:  
Confirm a tree is displayed under the "Special (MCU/IMC2/FAX)" on the maintenance program". (If no tree is displayed, confirm that the USB is connected and select the "Reconnect" (the above 5) again.)



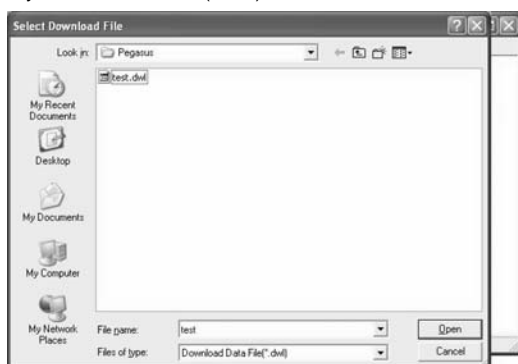
7) PC side:

Double click "Special (MCU/MCU2/FAX)" in the main tree item to develop the sub tree items, and double click "DWL Download" in the sub tree items.



8) PC side:

Specify the download file (\*.dwl).

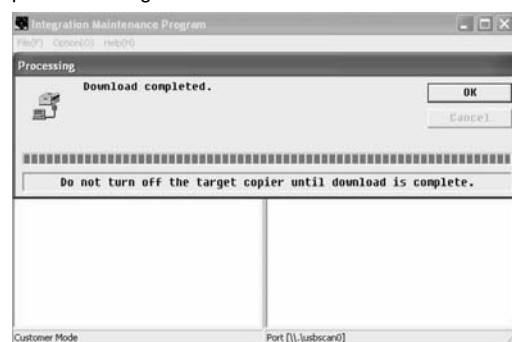


9) PC side:

The download file is specified, download is automatically performed. The "Automatic paper selection" lamp and "Start" lamp will blink approximately 15 seconds after the download file is specified.

10) PC side:

When the message below is displayed, download is completed. Completion message: DOWNLOAD COMPLETED



NOTE (Important):

- Be sure that the power is not turned off and the USB cable is not removed until the word "OFF" appears.

11) Main body side:

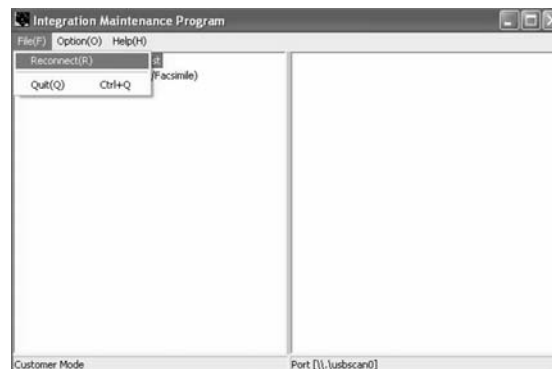
Wait until the word "OFF" appears on the operation panel. The appearance of "OFF" indicates the completion of the download (writing into ROM). Turn the power off.

12) After-process: Terminate the maintenance program, and turn on the power of the main body.

After the download (data transmission) has been completed, exit the software program. The USB cable can be removed at this point.

NOTE:

- For making a second connection with another machine, select the "File" and "Reconnect" in the menu bar on the maintenance program at the time of the USB being re-connected. Repeat the previous procedures from the above 5).



\* Forbidden actions while downloading (Important)

Failure in the download concerned may not allow you to conduct the subsequent download procedures. Added care should be taken to avoid having the situation below arise while downloading.

- Switching off the main body of AR-M205/M160.
- Disconnecting the download cable (USB cable).

\* If the above inhibit item occurs during downloading:

Turn OFF and ON the power.

- 1) If "d" (which means downloading) is displayed on the operation panel LED of the machine, perform downloading again.
- 2) If "d" (which means downloading) is not displayed on the operation panel LED of the machine, turn OFF the power, and press and hold the zoom (%) key and the "Department counter end" key and turn ON the power. If, then, "d" (which means downloading) is displayed on the operation panel LED of the machine, perform downloading again.  
If "d" is still not displayed, the MCU must be replaced.

## 3. Installation procedure

### A. USB joint maintenance program installation

The driver is installed by plug and play.

### B. Installation procedure on Windows XP

- 1) Machine side:  
Executable by performing the Service Simulation No. 49-01 (Flash Rom program-writing mode).  
(A word "d" appears on the operation panel to denote the download mode status. )
- 2) Connect the machine and the PC with a USB cable.  
(Be sure to use a USB cable for connection. USB2.0 of the AR-EB7 is not applicable.)



- 3) Check that the following display is shown.  
Select "Install from a list or the specific location" and press the NEXT button.



- 4) Select "Include this location in the search". If the retrieval area does not include the folder which includes the maintenance tool driver (Pegasus.inf), select "Browse"  
If the folder path is properly shown, press the NEXT button to go to procedure 7).



- 5) Select the folder which includes the maintenance tool driver (Pegasus.inf), and press the OK button.  
(When the driver is included in the "C:\Pegasus" folder:)



- 6) Check that the path to the folder which includes the maintenance tool driver (Pegasus.inf) is shown, and press the NEXT button.



- 7) Check that the following display is shown. Press the Continue Anyway button.



- 8) When installation is completed, the following display is shown.  
Press the Finish button.



The installation procedure (on Windows XP) is completed with the above operation.

### C. Installation procedure on Windows 2000

- Machine side:  
Executable by performing the Service Simulation No. 49-01 (Flash Rom program-writing mode).  
(A word "d" appears on the operation panel to denote the download mode status. )
- Connect the machine and the PC with a USB cable.  
(Be sure to use a USB cable for connection. USB2.0 of the AR-EB7 is not applicable.)

- 3) Check that the new hardware search wizard is shown. Press the NEXT button.



- 4) Select "Search for a suitable driver for my device" and press the NEXT button.



- 5) Select "Specify a location" and press the NEXT button.

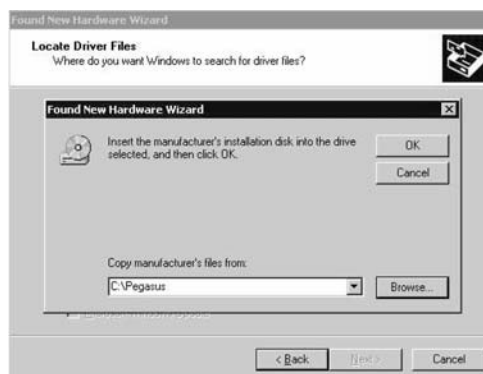


- 6) Press the "Browse" button. Specify the folder which includes the maintenance tool driver (Pegasus.inf)



- 7) Specify the folder which includes the maintenance tool driver (Pegasus.inf), and press the OPEN button.

Check that the path to the folder which includes the maintenance tool driver (Pegasus.inf) is properly displayed, and press the OK button. (When the maintenance tool driver is included in the folder of "D:\Pegasus")



- 8) Press the NEXT button, and installation is started.



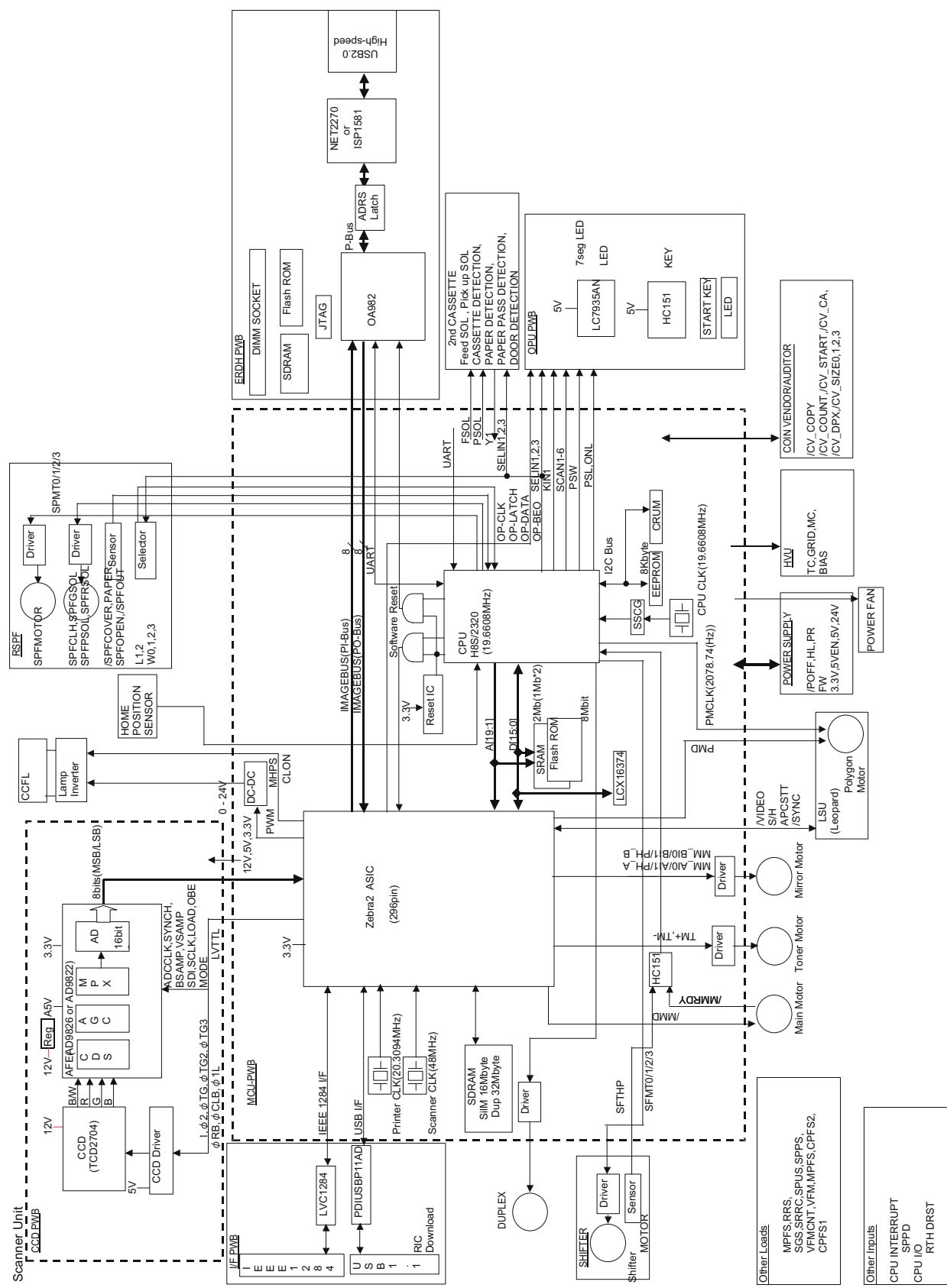
- 10) When installation is completed, the following display is shown. Press the Finish button.



The installation procedure of the joint maintenance program on Windows 2000 is completed with the above operation.

[13] ELECTRICAL SECTION

1.Block diagram



## 2.Circuit descriptions

### A. Main PWB (MCU)

#### (1) Operation circuit

##### a. General

The operation circuit is composed of the key matrix circuit and the display matrix circuit.

##### b. Key matrix circuit

Select signals SELIN 1 - 3 are sent from the CPU of the MCU to the selector in the operation circuit.

The signals detecting OFF/ON of the key are sent to the CPU as KIN 1 - 2.

##### c. Display circuit

The display is controlled by sending the data signal from the CPU of the MCU, the clock signals, and the latch signals from the ASIC to the LED driver in the operation circuit.

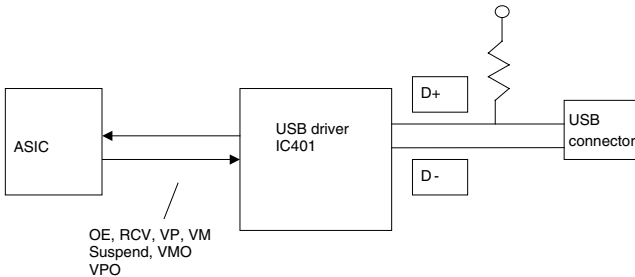
#### (2) I/F circuit

##### a. General

The I/F circuit is composed of the USB driver and the IEEE1284 driver, and performs hard interface with the ASIC (MCU PWB).

##### b. USB circuit

With the USB driver, the differential signals (analog) of USB are converted into digital signal, which are sent to the ASIC. In the reverse procedure, interface between the ASIC (engine) and the host is performed.



### B. DC power circuit

The DC power circuit directly rectifies the AC power and performs switching-conversion with the DC/DC converter circuit, and rectifies and smoothes again to generate a DC voltage.

The constant voltage control circuit is of +5VEN. +24V are of the non-control system by winding from the +5VEN winding. As shown in fig (1), +24V, and +5V are provided with the ON/OFF function by external signals. +3.3V is outputted from +5VEN to the regulator IC. Refer to the block diagram, fig (1).

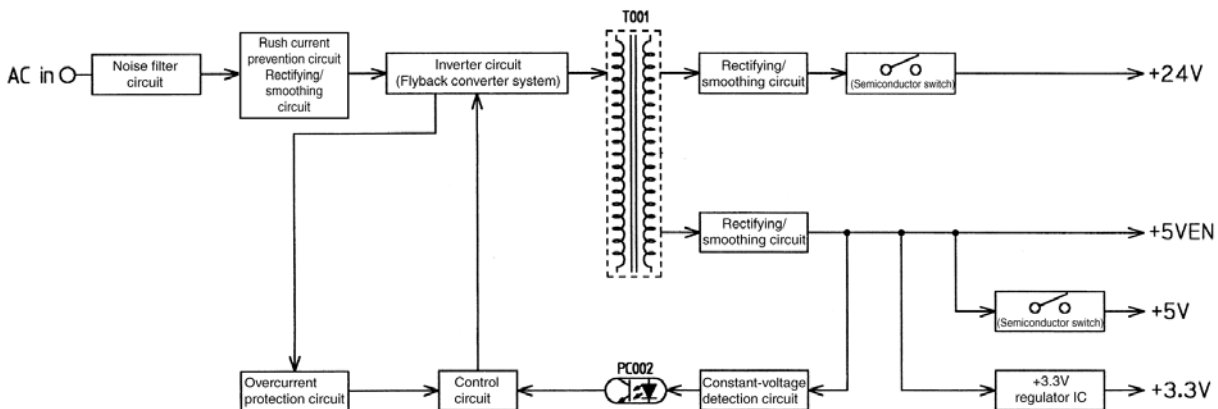
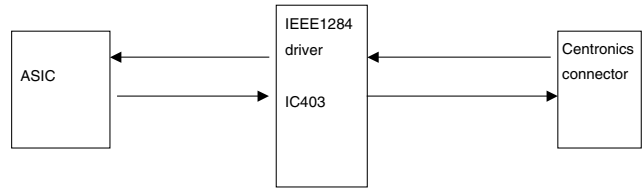


fig (1) Block diagram

#### c. IEEE1284 circuit

The IEEE1284 driver is used to perform interface between the ASIC (engine) and the host.



#### (3) Carriage unit

##### a. General

The carriage unit is provided with the CCD PWB, the inverter PWB, and the lamps. It scans documents and transfers AD-converted image data to the ASIC.

##### b. CCD PWB

The CCD on the CCD PWB employs the color image sensor uPD8861 of 5400 pixels x 3 lines, and scans documents in the main scanning direction in the resolution of 600dpi/US letter size.

Image data scanned by the CCD are inputted to the AFE (AD9826), and subject to CDS, amplification, and AD-conversion. Then digital data are outputted to the MCU PWB and to the ASIC, which performs image process of the digital data.

##### c. Lamp inverter PWB

The transformer is controlled by the lamp control signal from the MCU PWB. The transformer output controls lighting of the cool cathode ray tube.

### (1) Noise filter circuit

The filter circuit is composed of L and C. It reduces common noises and normal mode noises generated from the AC line. The common noise means that generated in each line for GND. Its noise component is delivered through C001, C003, and C007 to GND. The normal noise means that overlapped in the AC line or the output line. It is attenuated by C002, L001, C006, and L002. Refer to fig (2).

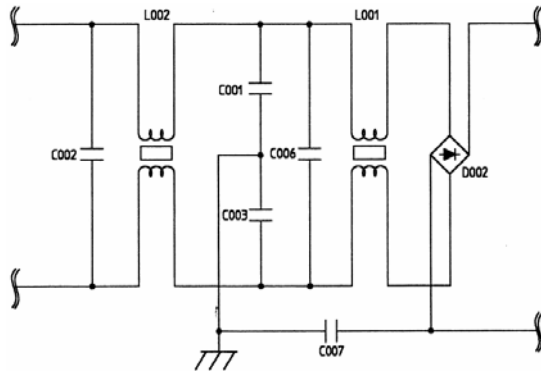


fig (2) Noise filter circuit

### (2) Rush current prevention circuit and rectifying/smoothing circuit

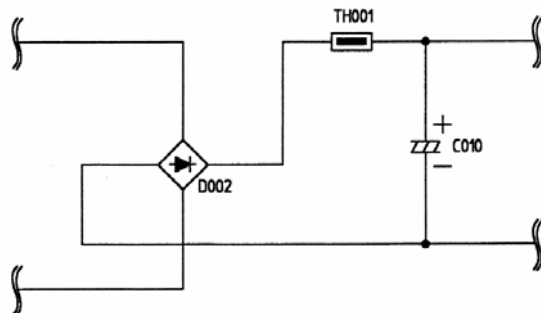


fig (3) Rush current prevention, rectifying/smoothing circuit

fig (3) Rush current prevention, rectifying/smoothing circuit Since the AC power is directly rectified, if there were not this rush current prevention resistor (TH001), an extremely large rush current would flow due to a charging current flowing through the smoothing capacitor C010 when turning on the power.

To prevent against this, the rush current prevention resistor TH001 is provided between the rectifying diode D002 and the smoothing diode C010, suppressing a rush current.

The rectifying/smoothing circuit rectifies a 50/60Hz AC voltage with the rectifying circuit, and smoothes it with the smoothing capacitor C010.

### (3) Inverter and control circuit (Flyback converter system)

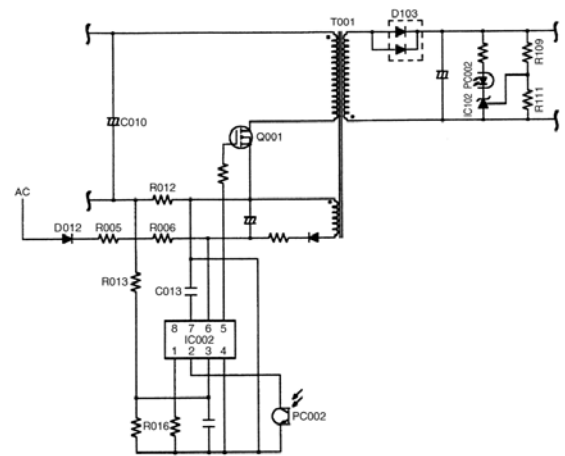


fig (4) Inverter and control circuit

This circuit is one-stone separate excitation DC-DC converter called flyback converter, as shown in fig (4).

When an electromotive voltage of IC is applied through D012, R005, and R006 to IC002, IC002 oscillates to conduct Q001.

As a result, a voltage is applied to the primary winding of the converter transformer (T001) and at the same time a voltage is generated in the driving winding of IC002 to operate IC002. Then IC002 turns ON/OFF Q001 at the frequency of about 70KHz determined by R016.

Under the ON state, the voltage in the secondary winding is reversed to the diode D103 and no current flows through the secondary winding of T001.

Under the OFF state, the current flowing through the primary winding is in the same direction as the primary winding, conducting D103 and transmitting energy to the secondary winding. Refer to fig (4).

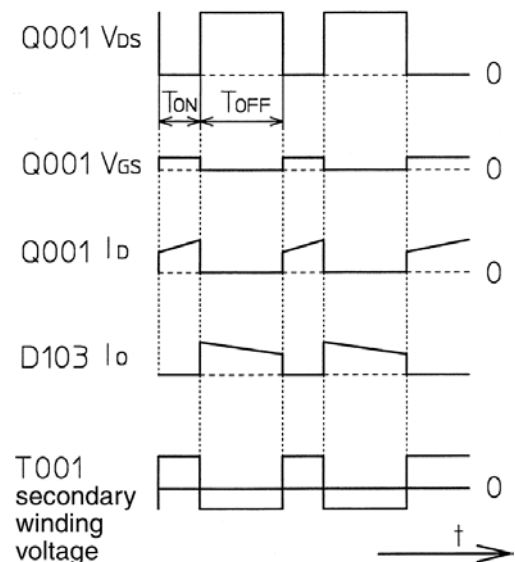


fig (5) Operation waveform of the flyback converter

The control circuit is subject to negative feedback from the secondary side as shown in fig (4). A photo coupler (PC002) is employed to insulate between the primary side and the secondary side to feed back the control signal to the primary side.

When the output voltage is increased by energy transmission from T001, the voltage detected by R109 and R111 is compared with the reference voltage of IC102. When it exceeds the reference voltage, the current flowing through IC102 (that is, the photo diode current of PC002) is increased and transmitted to the primary side. Then the potential at the feedback pin (2 pin) of IC102 is decreased to control Q001. Therefore, the change in the output voltage on the secondary side is passed through IC102 and PC002 to control Q001, stabilizing the output voltage.

**(4) Overcurrent protection circuit (Primary side)**

The inverter circuit of the primary side is connected with the current detection resistor R012. When an overcurrent occurs in the secondary side, the current flowing through the primary side inverter Q001 is increased. The current is detected by R012, and passed through R013 to IC002 overcurrent restricting pin (3 pin) to turn OFF Q002, shutting off all power. To resupply the power, turn off and on the power. Refer to fig (4).

**(5) Rectifying/smoothing circuit (+5V)**

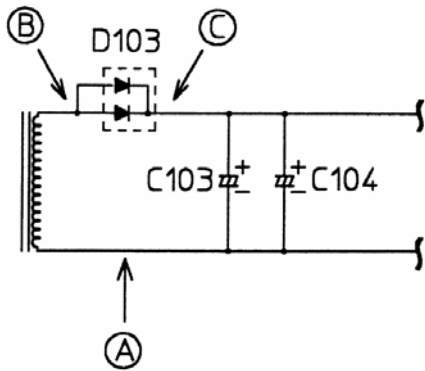


fig (6) Rectifying/smoothing circuit

The high frequency pulse generated by the inverter circuit is decreased by the converter transformer, rectified by the high frequency diode D103, and smoothed by C103 and C104.

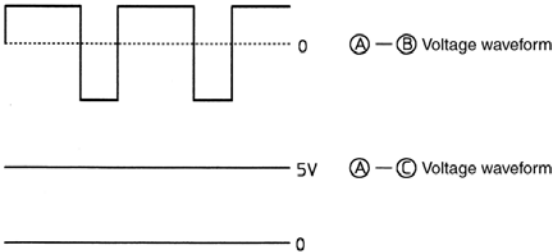
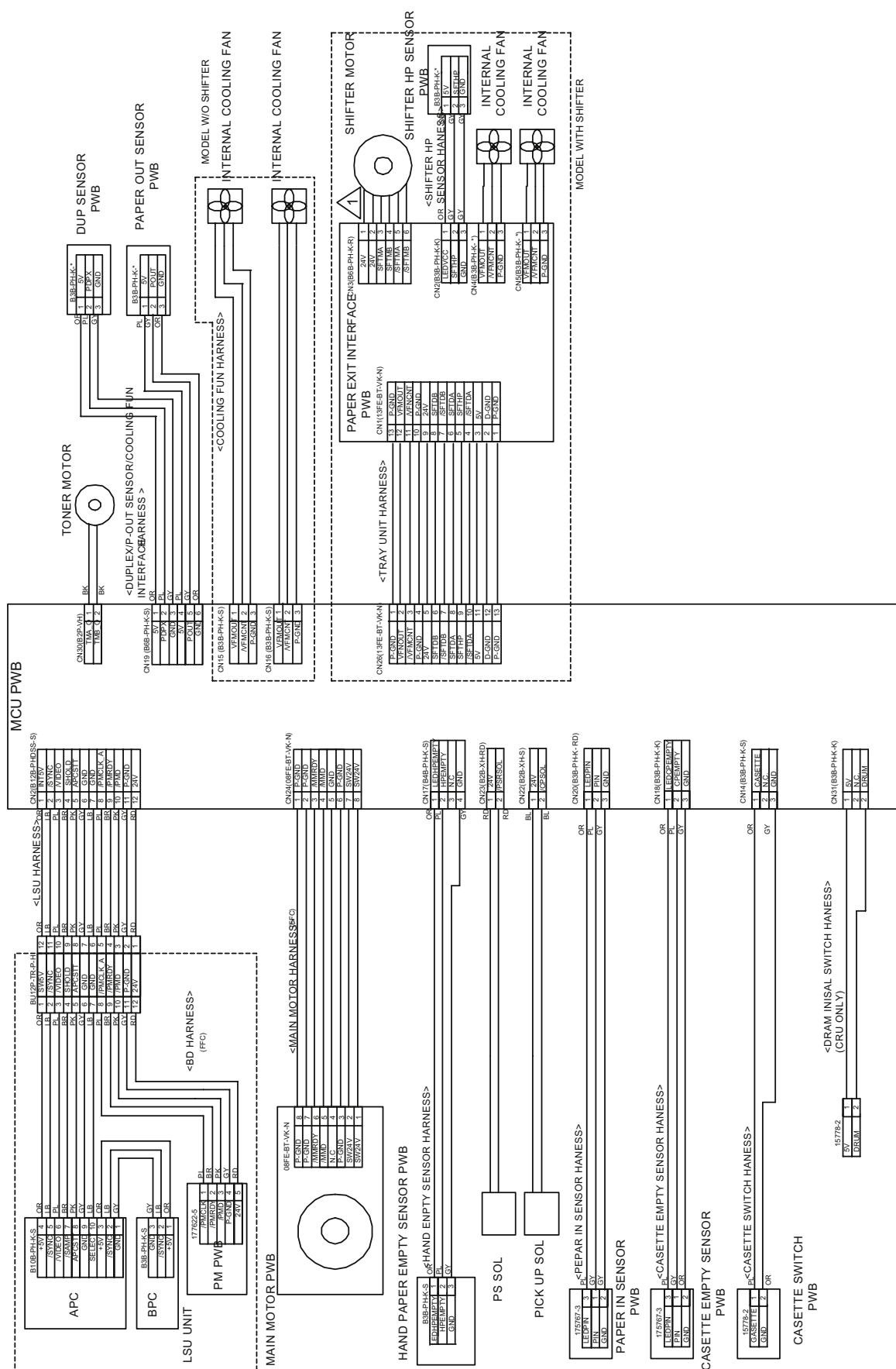


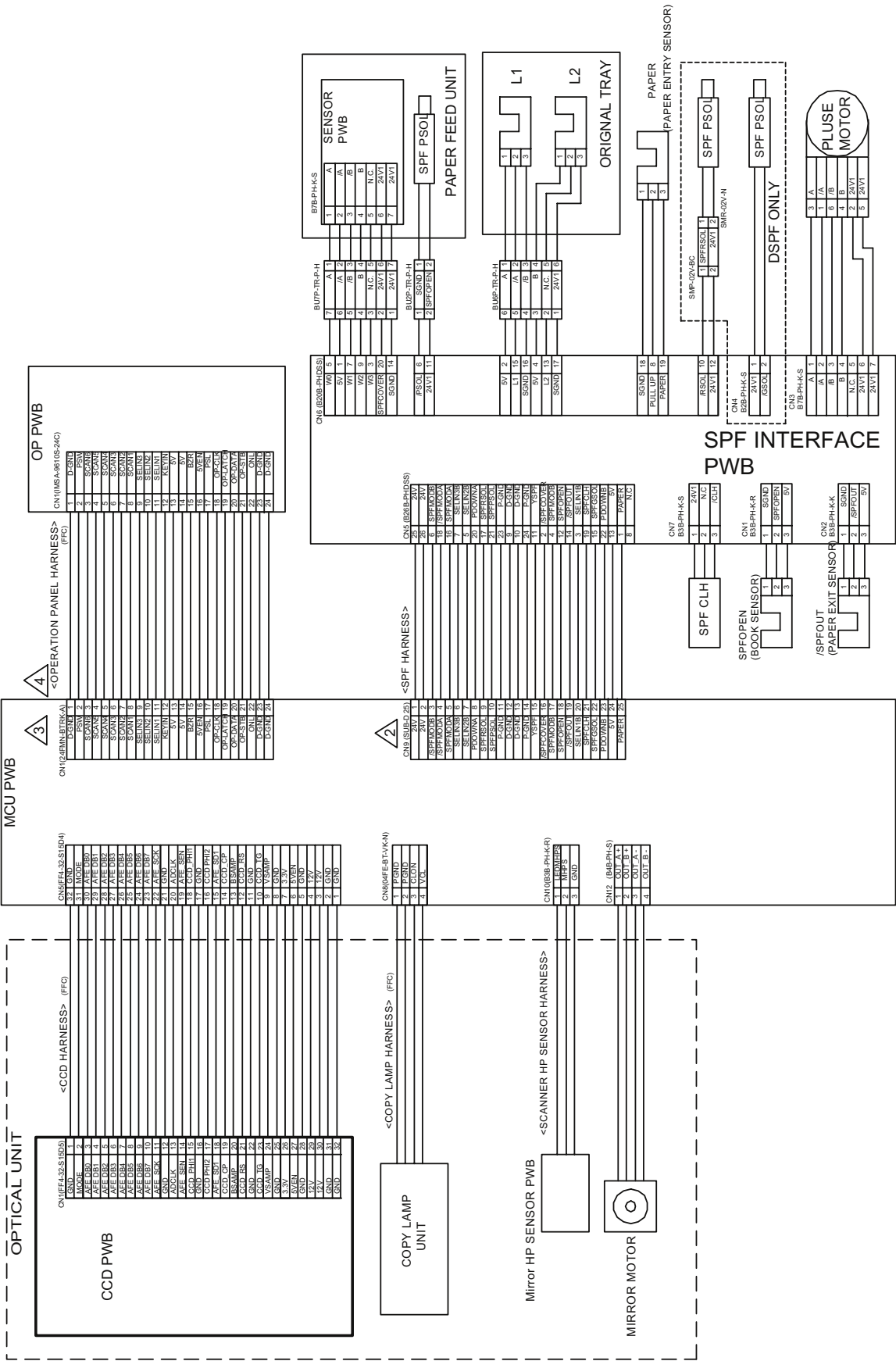
fig (7) +5V rectifying/smoothing circuit voltage waveform

**ACTUAL WIRING DIAGRAM 1/7**

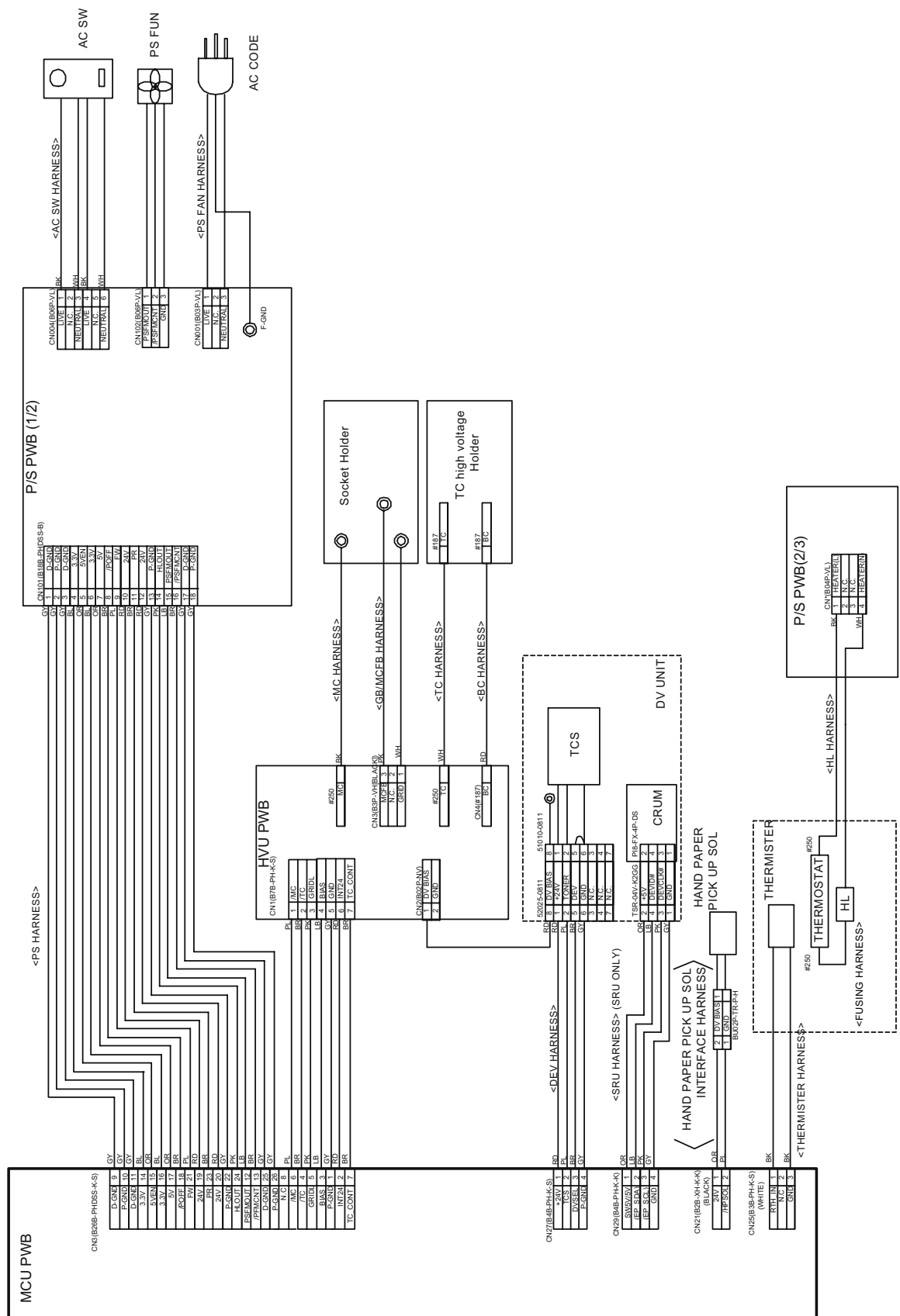


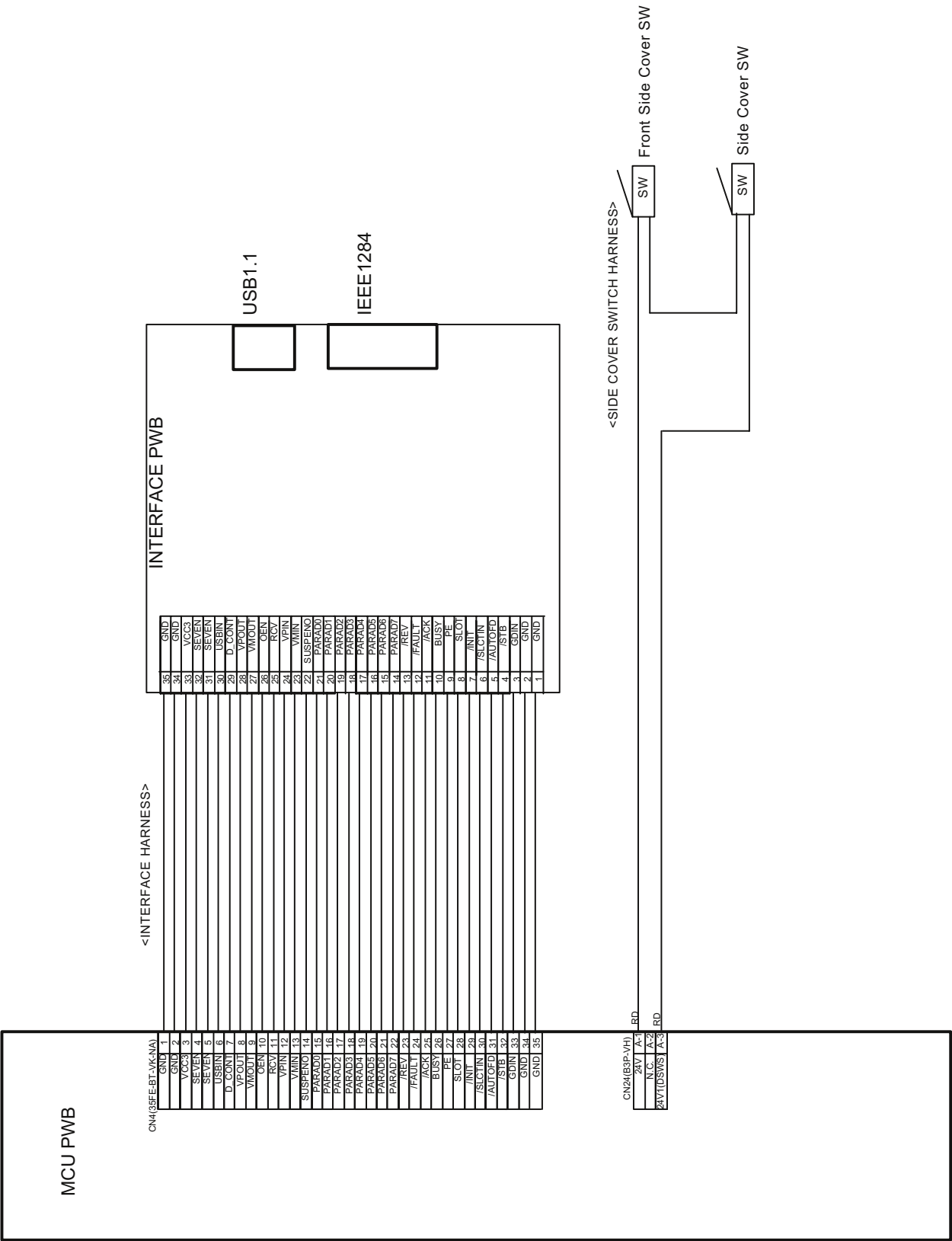






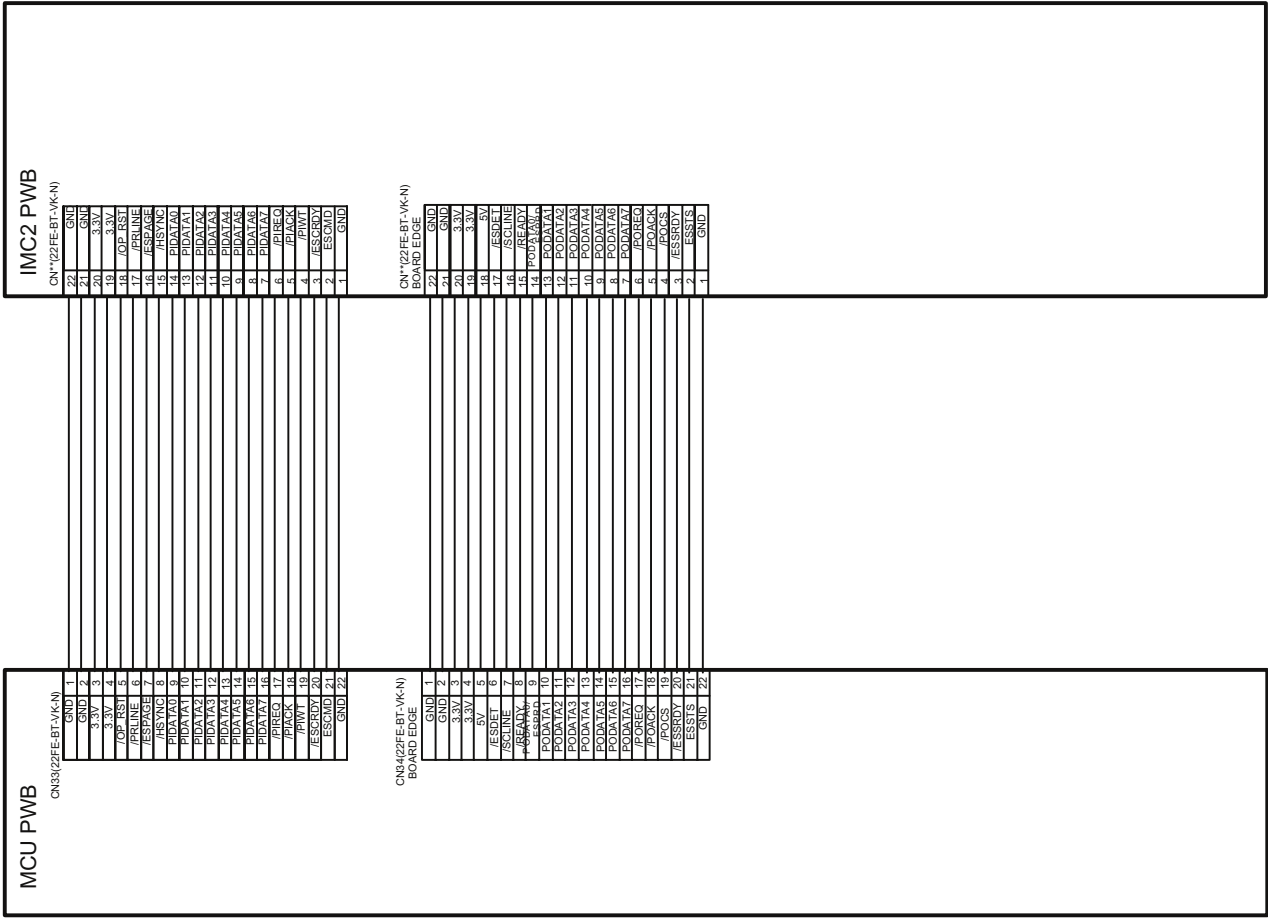
**ACTUAL WIRING DIAGRAM 4/7**







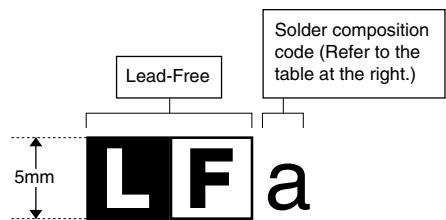
ACTUAL WIRING DIAGRAM 7/7



# LEAD-FREE SOLDER

The PWB's of this model employs lead-free solder. The "LF" marks indicated on the PWB's and the Service Manual mean "Lead-Free" solder. The alphabet following the LF mark shows the kind of lead-free solder.

**Example:**



<Solder composition code of lead-free solder>

Solder composition	Solder composition code
Sn-Ag-Cu	a
Sn-Ag-Bi Sn-Ag-Bi-Cu	b
Sn-Zn-Bi	z
Sn-In-Ag-Bi	i
Sn-Cu-Ni	n
Sn-Ag-Sb	s
Bi-Sn-Ag-P Bi-Sn-Ag	p

**(1) NOTE FOR THE USE OF LEAD-FREE SOLDER THREAD**

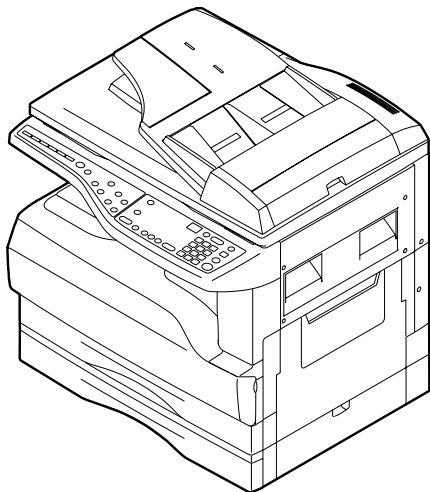
When repairing a lead-free solder PWB, use lead-free solder thread.  
Never use conventional lead solder thread, which may cause a breakdown or an accident.  
Since the melting point of lead-free solder thread is about 40°C higher than that of conventional lead solder thread, the use of the exclusive-use soldering iron is recommendable.

**(2) NOTE FOR SOLDERING WORK**

Since the melting point of lead-free solder is about 220°C, which is about 40°C higher than that of conventional lead solder, and its soldering capacity is inferior to conventional one, it is apt to keep the soldering iron in contact with the PWB for longer time. This may cause land separation or may exceed the heat-resistive temperature of components. Use enough care to separate the soldering iron from the PWB when completion of soldering is confirmed.  
Since lead-free solder includes a greater quantity of tin, the iron tip may corrode easily. Turn ON/OFF the soldering iron power frequently.  
If different-kind solder remains on the soldering iron tip, it is melted together with lead-free solder. To avoid this, clean the soldering iron tip after completion of soldering work.  
If the soldering iron tip is discolored black during soldering work, clean and file the tip with steel wool or a fine filer.

CODE:00ZARM205/P2/

## デジタル複合機 DIGITAL COPIER



	<b>AR-200M</b>	[Japan only]
	<b>AR-160M</b>	[Japan only]
	<b>AR-M205</b>	[Except Japan]
	<b>AR-M160</b>	[Except Japan]
	<b>AR-5220</b>	[Except Japan]
	<b>AR-SP6/RP6</b>	[Option]
	<b>AR-D24/D25</b>	[Option]
<b>MODEL</b>	<b>AR-EB7</b>	[Option]

このパーツガイドに掲載されている表示価格ランクは消費税抜きです。

### CONTENTS

- 1 MCU PWB
  - 2 CCD PWB
  - 3 COPY OPE PWB
  - 4 I/F PWB
  - 5 SCAN OPE PWB
  - 6 TRAY PWB
  - 7 SPF/RSPF INTERFACE PWB(Option AR-SP6/RP6)
  - 8 SPF SENSOR PWB(Option AR-SP6/RP6)
  - 9 CASSETTE PWB(Option AR-D24/D25)
  - 10 IMC2 PWB(Option AR-EB7)
- 索引 (Index)

## 補修部品のランク付

市場における補修部品の在庫管理が、適正に運営出来る手助けとなることを、目的とします。

- Aランク：メンテナンスパーツ、メンテナンスパーツには入っていないがメンテナンスパーツに近い消耗パーツ。  
 Bランク：性能・機能パーツ（センサー、クラッチ等の電気パーツ）、消耗パーツ。  
 Eランク：基板含むユニットパーツ。  
 Dランク：整備パーツ（外装、パッキング、同梱パーツ）。  
 Cランク：上記ランク以外のパーツ（基板の子部品を除いたもの）。

## DEFINITION

- Rank A：Maintenance parts, and consumable parts which are not included in but closely related to maintenance parts  
 Rank B：Performance/function parts (sensors, clutches, and other electrical parts), consumable parts  
 Rank E：Unit parts including PWB  
 Rank D：Preparation parts (External fitting, packing, parts packed together)  
 Rank C：Parts other than the above (excluding sub components of PWB)

安全性・信頼性確保のため部品は、必ず正規のものをご使用下さい。

△印の商品は、安全上重要な部品です。交換をする時は、安全及び性能維持のため必ず指定の部品をご使用下さい。

Because parts marked with "△" is indispensable for the machine safety maintenance and operation, it must be replaced with the parts specific to the product specification.

- 当モデルのサービス資料には、この資料以外にサービスマニュアル（回路図含む）があります。合わせてご利用下さい。
- Other than this Parts Guide, please refer to documents Service Manual(including Circuit Diagram) of this model.
- Please use the 13 digit code described in the right hand corner of front cover of the document, when you place an order.
- For U.S. only-Use order codes provided in advertising literature. Do not order from parts department.

## 1 MCU PWB

NO.	PARTS CODE	PRICE RANK		NEW MARK	PART RANK	DESCRIPTION
		Ex.	Ja.			
2	VH i 29 L 0800 BQS	BD	GJ		B	Flash ROM [AR-M205/AR-5220][IC10] Flash ROM
3	VH i 29 L 0800 CQS	BD	GJ		B	Flash ROM [AR-200M][IC10] Flash ROM
4	QCNCM0017QSZZ	AC	DJ		C	Connector(4pin) [AR-M160/AR-M205/AR-5220][CN29] コネクタ
8	QCNCM0877FCZZ	AF	DS		C	Connector(20pin) [CN36] コネクタ
9	QCNCM0923FC12	AE	DJ		C	Connector(12pin) [CN2] コネクタ
10	QCNCM1005MCZZ	AB	DD		C	Connector(2pin) [CN30] コネクタ
11	QCNCM1006MCZZ	AB	DD		C	Connector(3pin) [CN28] コネクタ
12	QCNCM2334SC0B	AB	DD		C	Connector(2pin) [CN22] コネクタ
13	QCNCM2401SC0C	AB	DJ		C	Connector(3pin) [CN10,CN20] コネクタ
14	QCNCM2401SC0D	AC	DJ		C	Connector(4pin) [CN32] コネクタ
15	QCNCM7014SC0C	AA	DD		C	Connector(3pin) [CN14,CN25] コネクタ
16	QCNCM7014SC0D	AB	DD		C	Connector(4pin) [CN12,CN17,CN27] コネクタ
17	QCNCM7014SC0E	AB	DJ		C	Connector(5pin) [AR-M205 only][CN13] コネクタ
18	QCNCM7014SC0F	AB	DD		C	Connector(6pin) [CN19] コネクタ
19	QCNCM7014SC1C	AC	DD		C	Connector(13pin) [CN35] コネクタ
21	QCNCW0024QSZZ	AF	DS		C	Connector(32pin) [CN5] コネクタ
22	QCNCW0077QSZZ	AK	DX		C	Connector(25pin) [CN9] コネクタ
23	QCNCW0078QSZZ	AF	DS		C	Connector(35Pin) [CN4] コネクタ
26	QCNCW0885FCZZ	AG	DX		C	Connector(12Pin) [CN37] コネクタ
27	QCNCW1124LC0D	AB	DJ		C	Connector(4pin) [CN8] コネクタ
28	QCNCW1124LC0H	AC	DJ		C	Connector(8pin) [CN24] コネクタ
29	QCNCW1124LC1C	AC	DJ		C	Connector(13pin) [CN26] コネクタ
31	QSOCZ0002QSZZ	AD	DJ		C	IC socket(CICO-083-S8-T) [IC3] IC ソケット
32	RCRSP00016QSZZ	AD	DJ		B	Crystal(19.6608MHz) [X1] クリスタル
35	RF i L Z 0004 QSZZ	AM	EG		C	Filter(ZJSR5101-223) [L1,L2,L3,L5,L6,L7] フィルタ
36	RH-DZ0016FCZZ	AB	DD		B	Diode(MA700) [D2] ダイオード
37	RH-iX0001QSZZ	BD	GN		B	SDRAM(MT48LC8M16ATG-8E) [AR-M160/AR-5220/AR-200M/AR-160M][IC9] SDRAM
39	RH-iX7001XCZZ	AQ	EQ		B	SRAM(IS63LV1024L-12J-TR) [IC8,IC11] SRAM
40	RMPTW4100QCJJ	AA	DD		B	Block resistor(10Ω×4) [BR16,BR18,BR19,BR20,BR22] ブロック抵抗
	RMPTW4100QCJJ	AA	DD		B	Block resistor(10Ω×4) [BR25,BR26,BR28,BR46,BR50] ブロック抵抗
41	RMPTW4101QCJJ	AB	DD		B	Block resistor(33Ω×4) [BR7,BR38,BR57,BR58,BR63] ブロック抵抗
42	RMPTW4103QCJJ	AB	DD		B	Block resistor(10KΩ×4) [BR1,BR2,BR3,BR4,BR5] ブロック抵抗
	RMPTW4103QCJJ	AB	DD		B	Block resistor(10KΩ×4) [BR6,BR8,BR9,BR10,BR11] ブロック抵抗
	RMPTW4103QCJJ	AB	DD		B	Block resistor(10KΩ×4) [BR12,BR13,BR14,BR15,BR17] ブロック抵抗
	RMPTW4103QCJJ	AB	DD		B	Block resistor(10KΩ×4) [BR21,BR23,BR24,BR27,BR32] ブロック抵抗
	RMPTW4103QCJJ	AB	DD		B	Block resistor(10KΩ×4) [BR34,BR36,BR37,BR39,BR40] ブロック抵抗
	RMPTW4103QCJJ	AB	DD		B	Block resistor(10KΩ×4) [BR41,BR42,BR43,BR44,BR45] ブロック抵抗
43	RMPTW4221QCJJ	AA	DD		B	Block resistor(220Ω×4) [BR53,BR54,BR55,BR56] ブロック抵抗
44	RMPTW4330QCJJ	AB	DD		B	Block resistor(33Ω×4) [BR29,BR30,BR31,BR33,BR35] ブロック抵抗
45	VCCCCZ1HH101J	AA	DD		C	Capacitor(50WV 100pF) [C4,C5,C25,C28,C96] コンデンサ
	VCCCCZ1HH101J	AA	DD		C	Capacitor(50WV 100pF) [C97,C98,C104,C105,C106] コンデンサ
	VCCCCZ1HH101J	AA	DD		C	Capacitor(50WV 100pF) [C107,C108,C109,C112,C113] コンデンサ
	VCCCCZ1HH101J	AA	DD		C	Capacitor(50WV 100pF) [C114,C115,C116,C117,C118] コンデンサ
	VCCCCZ1HH101J	AA	DD		C	Capacitor(50WV 100pF) [C250,C73,C225,C288,C289] コンデンサ
	VCCCCZ1HH101J	AA	DD		C	Capacitor(50WV 100pF) [C290,C291,C292,C293,C294] コンデンサ
	VCCCCZ1HH101J	AA	DD		C	Capacitor(50WV 100pF) [C285,C286,C287,C17,C20] コンデンサ



# 1 MCU PWB

NO.	PARTS CODE	PRICE RANK		NEW MARK	PART RANK	DESCRIPTION
		Ex.	Ja.			
45	VCCCCZ1HH101J	AA	DD		C	Capacitor(50WV 100pF) [C21,C22] コンデンサ
46	VCCCCZ1HH120J	AA	DD		C	Capacitor(50WV 12pF) [C6,C29,C30,C42,C43] コンデンサ
	VCCCCZ1HH120J	AA	DD		C	Capacitor(50WV 12pF) [C44,C55,C56,C72,C78] コンデンサ
	VCCCCZ1HH120J	AA	DD		C	Capacitor(50WV 12pF) [C79,C81,C84,C93,C94] コンデンサ
	VCCCCZ1HH120J	AA	DD		C	Capacitor(50WV 12pF) [C283,C284] コンデンサ
47	VCCCCZ1HH150J	AA	DD		C	Capacitor(50WV 15pF) [C74,C75] コンデンサ
48	VCCCCZ1HH220J	AA	DD		C	Capacitor(50WV 22pF) [C1,C3] コンデンサ
49	VCCCCZ1HH330J	AA	DD		C	Capacitor(50WV 33pF) [C100,C102,C120,C265,C316] コンデンサ
	VCCCCZ1HH330J	AA	DD		C	Capacitor(50WV 33pF) [C317,C318,C319,C320,C321] コンデンサ
50	VCEAGA1CW106M	AA	DD		C	Capacitor(16WV 10μF) [C9,C151] コンデンサ
51	VCEAGA1CW226M	AB	DD		C	Capacitor(16WV 22μF) [C80,C221,C222] コンデンサ
52	VCEAGA1CW476M	AB	DD		C	Capacitor(16WV 47μF) [C41] コンデンサ
53	VCEAGA1VW106M	AA	DD		C	Capacitor(35WV 10μF) [C154] コンデンサ
54	VCEAGA1VW476M	AB	DD		C	Capacitor(35WV 47μF) [C142,C200,C206,C240] コンデンサ
55	VCKYCY1EF104Z	AA	DD		C	Capacitor(25WV 0.1μF) [C2,C8,C11,C12,C13] コンデンサ
	VCKYCY1EF104Z	AA	DD		C	Capacitor(25WV 0.1μF) [C14,C15,C23,C26,C27] コンデンサ
	VCKYCY1EF104Z	AA	DD		C	Capacitor(25WV 0.1μF) [C31,C32,C34,C36,C38] コンデンサ
	VCKYCY1EF104Z	AA	DD		C	Capacitor(25WV 0.1μF) [C39,C46,C49,C50,C52] コンデンサ
	VCKYCY1EF104Z	AA	DD		C	Capacitor(25WV 0.1μF) [C53,C54,C58,C59,C60] コンデンサ
	VCKYCY1EF104Z	AA	DD		C	Capacitor(25WV 0.1μF) [C62,C63,C65,C67,C71] コンデンサ
	VCKYCY1EF104Z	AA	DD		C	Capacitor(25WV 0.1μF) [C76,C77,C83,C85,C86] コンデンサ
	VCKYCY1EF104Z	AA	DD		C	Capacitor(25WV 0.1μF) [C87,C88,C89,C90,C91] コンデンサ
	VCKYCY1EF104Z	AA	DD		C	Capacitor(25WV 0.1μF) [C92,C95,C99,C101,C103] コンデンサ
	VCKYCY1EF104Z	AA	DD		C	Capacitor(25WV 0.1μF) [C111,C119,C121,C122,C123] コンデンサ
	VCKYCY1EF104Z	AA	DD		C	Capacitor(25WV 0.1μF) [C124,C125,C126,C129,C131] コンデンサ
	VCKYCY1EF104Z	AA	DD		C	Capacitor(25WV 0.1μF) [C132,C133,C134,C135,C138] コンデンサ
	VCKYCY1EF104Z	AA	DD		C	Capacitor(25WV 0.1μF) [C139,C140,C141,C143,C144] コンデンサ
	VCKYCY1EF104Z	AA	DD		C	Capacitor(25WV 0.1μF) [C145,C146,C152,C153,C155] コンデンサ
	VCKYCY1EF104Z	AA	DD		C	Capacitor(25WV 0.1μF) [C160,C161,C162,C163,C164] コンデンサ
	VCKYCY1EF104Z	AA	DD		C	Capacitor(25WV 0.1μF) [C165,C166,C167,C168,C169] コンデンサ
	VCKYCY1EF104Z	AA	DD		C	Capacitor(25WV 0.1μF) [C170,C171,C172,C173,C174] コンデンサ
	VCKYCY1EF104Z	AA	DD		C	Capacitor(25WV 0.1μF) [C175,C176,C177,C178,C179] コンデンサ
	VCKYCY1EF104Z	AA	DD		C	Capacitor(25WV 0.1μF) [C180,C181,C182,C183,C184] コンデンサ
	VCKYCY1EF104Z	AA	DD		C	Capacitor(25WV 0.1μF) [C185,C186,C187,C188,C189] コンデンサ
	VCKYCY1EF104Z	AA	DD		C	Capacitor(25WV 0.1μF) [C190,C191,C192,C193,C194] コンデンサ
	VCKYCY1EF104Z	AA	DD		C	Capacitor(25WV 0.1μF) [C195,C196,C201,C223,C224] コンデンサ
	VCKYCY1EF104Z	AA	DD		C	Capacitor(25WV 0.1μF) [C231,C232,C233,C234,C241] コンデンサ
	VCKYCY1EF104Z	AA	DD		C	Capacitor(25WV 0.1μF) [C245,C246,C247,C248,C261] コンデンサ
	VCKYCY1EF104Z	AA	DD		C	Capacitor(25WV 0.1μF) [C262,C266,C281,C282,C315] コンデンサ
56	VCKYCY1HB102K	AA	DD		C	Capacitor(50WV 1000pF) [C267,C268] コンデンサ
57	VCKYCY1HB104K	AA	DD		C	Capacitor(50WV 0.10μF) [C127,C130,C207,C244] コンデンサ
58	VCKYCY1HB222K	AA	DD		C	Capacitor(50WV 2200pF) [C269,C270] コンデンサ
59	VCKYCY1HB473K	AA	DD		C	Capacitor(50WV 0.047μF) [C229] コンデンサ
60	VCKYCZ1CB223K	AB	DD		C	Capacitor(16WV 0.022μF) [C70,C128,C136] コンデンサ
62	VCKYCZ1HB102K	AA	DD		C	Capacitor(50WV 1000pF) [C24,C197,C198,C199,C202] コンデンサ
	VCKYCZ1HB102K	AA	DD		C	Capacitor(50WV 1000pF) [C203,C204,C205,C208,C209] コンデンサ
	VCKYCZ1HB102K	AA	DD		C	Capacitor(50WV 1000pF) [C210,C211,C212,C213,C214] コンデンサ
	VCKYCZ1HB102K	AA	DD		C	Capacitor(50WV 1000pF) [C215,C216,C217,C218,C219] コンデンサ
	VCKYCZ1HB102K	AA	DD		C	Capacitor(50WV 1000pF) [C220,C227,C249,C258,C259] コンデンサ
	VCKYCZ1HB102K	AA	DD		C	Capacitor(50WV 1000pF) [C260,C263,C264,C311,C312] コンデンサ
63	VCKYCZ1HB102K	AA	DD		C	Capacitor(50WV 1000pF) [C313,C314] コンデンサ
	VCKYCZ1HB271K	AA	DD		C	Capacitor(50WV 270pF) [C272] コンデンサ
64	VCKYCZ1HB471K	AA	DD		C	Capacitor(50WV 470pF) [C303,C304,C305,C306,C307] コンデンサ
	VCKYCZ1HB471K	AA	DD		C	Capacitor(50WV 470pF) [C308,C309,C310] コンデンサ
65	VCKYCZ1HB821K	AC	DD		C	Capacitor(50WV 820pF) [C147,C148,C149,C150] コンデンサ
66	VHD1SS355/-1	AB	DJ		B	Diode(1SS355) [D1,D14,D15,D16,D20] ダイオード
67	VHDDSS133/-1	AA	DD		B	Diode(1SS133) [D36,D37,D38] ダイオード
68	VHDKDS120++-1	AC	DJ		B	diode(KDS120) [D6,D19,D23,D28] ダイオード
	VHDKDS120++-1	AC	DJ		B	diode(KDS120) [D29,D32,D34] ダイオード
69	VHDKDS121++-1	AC	DJ		B	Diode(KDS121) [D3,D4,D18,D22,D26] ダイオード
	VHDKDS121++-1	AC	DJ		B	Diode(KDS121) [D27,D31,D33] ダイオード
70	VHDKDS226++-1	AC	DJ		B	Diode(KDS226) [D5,D13,D17,D21,D24] ダイオード
	VHDKDS226++-1	AC	DJ		B	Diode(KDS226) [D25,D30,D35] ダイオード
71	VHEMTZJ22B/-1	AA	DD		B	Zener diode(MTZJ22B) [AR-M205 only][D11] ヴォルテージ・イート
72	VHEUDZ3.9B/-1	AC	DJ		B	Zener diode(UDZ3.9B) [ZD1,ZD2,ZD3,ZD4] ヴォルテージ・イート
73	VHEUDZ5.6B/-1	AC	DJ		B	Zener diode(UDZ5.6B) [ZD5] ヴォルテージ・イート
74	VH174HC151M-1	AD	DJ		B	IC(74HC151M) [IC13,IC15,IC17,IC38] IC
76	VH174LCX32M-1	AE	DJ		B	IC(74LCX32M) [IC29] IC
77	VH1D65001AF-1	AG	DS		B	IC(D65001AF) [IC21,IC24,IC25] IC
78	VH1D65503F+-1	AG	DS		B	IC(D65503F) [IC22,IC26] IC
79	VH1EES04L400P	AG	DX		B	IC(EES04L400P) [IC3] IC
80	VH1H8S2321+-1	AX	FG		B	IC(HD6412321VF25) [IC2] IC
82	VH1KA7805AP-1	AE	DS		B	IC(KIA7805API) [IC35] IC
84	VH1K1A358F+-1	AE	DS		B	IC(KIA358F) [IC27] IC
85	VH1K1A393F+-1	AE	DS		B	IC(KIA393F) [IC23] IC
86	VH1L6219DS+-1	AN	EQ		B	IC(L6219DS) [IC32] IC
87	VH1LCX16244-1	AM	EG		B	IC(LCX16244) [IC19] IC
88	VH1LCX16374-1	AM	EG		B	IC(74LCX16374MEA) [IC30,IC28] IC
89	VH1LCX244WM-1	AG	DX		B	IC(74LCX244WM) [IC20] IC
91	VH1LVX4245M-1	AL	EB		B	IC(74LVX4245MT) [AR-M160/AR-M205/AR-5220][IC31] IC

1 MCU PWB

NO.	PARTS CODE	PRICE RANK		NEW MARK	PART RANK	DESCRIPTION
		Ex.	Ja.			
92	VH i M51957BFP1	AH	DX		B	IC(M51957BFP1) [IC4] IC
93	VH i P2010ASR-1	AN	EQ		B	IC(P2010ASR) [IC1] IC
94	VH i TA7291AS-1	AF	DX		B	IC(TA7291S) [IC34] IC
95	VH i TD62064AF/	AM	EG		B	IC(TD62064AF) [AR-M205 only][IC33] IC
96	VH i VHCT244M-1	AG	DX		B	IC(VHCT244M) [IC12,IC14,IC16,IC18,IC37] IC
97	VRD-HT2EY472J	AA	DD		C	Resistor(1/4W 4.7KΩ ±5%) [R84,R102,R103] ㊦㊦
98	VRN-VT3ATR68J	AC	DD		C	Resistor(1W 0.68Ω ±5%) [R119,R120] ㊦㊦
99	VRS-CZ1JD000J	AA	DD		C	Resistor(1/16W 0Ω ±5%) [R2,R5,R6,R11,R12,R13] ㊦㊦
	VRS-CZ1JD000J	AA	DD		C	Resistor(1/16W 0Ω ±5%) [R14,R15,R16,R17,R49,R50] ㊦㊦
	VRS-CZ1JD000J	AA	DD		C	Resistor(1/16W 0Ω ±5%) [R54,R56,R59,R63,R64,R213] ㊦㊦
	VRS-CZ1JD000J	AA	DD		C	Resistor(1/16W 0Ω ±5%) [R226,R233,R212,R227] ㊦㊦
	VRS-CZ1JD000J	AA	DD		C	Resistor(1/16W 0Ω ±5%) [AR-M205 only][R62] ㊦㊦
100	VRS-CZ1JD100J	AA	DD		C	Resistor(1/16W 10Ω ±5%) [R37,R38,R51,R66,R70] ㊦㊦
	VRS-CZ1JD100J	AA	DD		C	Resistor(1/16W 10Ω ±5%) [R71,R149,R150,R151,R152] ㊦㊦
	VRS-CZ1JD100J	AA	DD		C	Resistor(1/16W 10Ω ±5%) [R225,R195] ㊦㊦
101	VRS-CZ1JD101J	AA	DD		C	Resistor(1/16W 100Ω ±5%) [R110,R232,R235] ㊦㊦
102	VRS-CZ1JD102F	AA	DD		C	Resistor(1/16W 1KΩ ±1%) [R86,R123] ㊦㊦
103	VRS-CZ1JD102J	AA	DD		C	Resistor(1/16W 1.0KΩ ±5%) [R89,R116,R145,R146,R147] ㊦㊦
	VRS-CZ1JD102J	AA	DD		C	Resistor(1/16W 1.0KΩ ±5%) [R166,R167,R168,R169,R170] ㊦㊦
	VRS-CZ1JD102J	AA	DD		C	Resistor(1/16W 1.0KΩ ±5%) [R171,R172,R173,R174,R175] ㊦㊦
	VRS-CZ1JD102J	AA	DD		C	Resistor(1/16W 1.0KΩ ±5%) [R176,R177,R178,R182,R217] ㊦㊦
	VRS-CZ1JD102J	AA	DD		C	Resistor(1/16W 1.0KΩ ±5%) [R218,R219,R223,R222,R181] ㊦㊦
	VRS-CZ1JD102J	AA	DD		C	Resistor(1/16W 1.0KΩ ±5%) [R179] ㊦㊦
	VRS-CZ1JD103F	AA	DD		C	Resistor(1/16W 10KΩ ±1%) [R18,R21,R97,R115] ㊦㊦
105	VRS-CZ1JD103J	AA	DD		C	Resistor(1/16W 10KΩ ±5%) [R8,R9,R19,R22,R24] ㊦㊦
	VRS-CZ1JD103J	AA	DD		C	Resistor(1/16W 10KΩ ±5%) [R30,R32,R34,R35,R36] ㊦㊦
	VRS-CZ1JD103J	AA	DD		C	Resistor(1/16W 10KΩ ±5%) [R42,R46,R47,R53,R58] ㊦㊦
	VRS-CZ1JD103J	AA	DD		C	Resistor(1/16W 10KΩ ±5%) [R61,R67,R68,R69,R72] ㊦㊦
	VRS-CZ1JD103J	AA	DD		C	Resistor(1/16W 10KΩ ±5%) [R74,R76,R114,R118,R142] ㊦㊦
	VRS-CZ1JD103J	AA	DD		C	Resistor(1/16W 10KΩ ±5%) [R143,R144,R183,R184,R185] ㊦㊦
	VRS-CZ1JD103J	AA	DD		C	Resistor(1/16W 10KΩ ±5%) [R202,R203,R204,R234,R236] ㊦㊦
	VRS-CZ1JD103J	AA	DD		C	Resistor(1/16W 10KΩ ±5%) [R180,R197] ㊦㊦
106	VRS-CZ1JD105F	AA	DD		C	Resistor(1/16W 1.0MΩ ±1%) [R87] ㊦㊦
107	VRS-CZ1JD122F	AA	DD		C	Resistor(1/16W 1.2KΩ ±1%) [R113] ㊦㊦
108	VRS-CZ1JD133F	AA	DD		C	Resistor(1/16W 13KΩ ±1%) [R126] ㊦㊦
109	VRS-CZ1JD152J	AA	DD		C	Resistor(1/16W 1.5KΩ ±5%) [R77,R78,R80,R81,R82] ㊦㊦
	VRS-CZ1JD152J	AA	DD		C	Resistor(1/16W 1.5KΩ ±5%) [R83,R85,R90,R91,R92] ㊦㊦
	VRS-CZ1JD152J	AA	DD		C	Resistor(1/16W 1.5KΩ ±5%) [R95,R96,R99,R100,R104] ㊦㊦
	VRS-CZ1JD152J	AA	DD		C	Resistor(1/16W 1.5KΩ ±5%) [R105,R106,R107,R108,R111] ㊦㊦
	VRS-CZ1JD152J	AA	DD		C	Resistor(1/16W 1.5KΩ ±5%) [R112,R121,R122] ㊦㊦
110	VRS-CZ1JD203J	AA	DD		C	Resistor(1/16W 20KΩ ±5%) [R137,R138,R153,R154,R155] ㊦㊦
	VRS-CZ1JD203J	AA	DD		C	Resistor(1/16W 20KΩ ±5%) [R156,R157,R158,R159,R160] ㊦㊦
	VRS-CZ1JD203J	AA	DD		C	Resistor(1/16W 20KΩ ±5%) [R161,R162,R163,R164,R165] ㊦㊦
	VRS-CZ1JD203J	AA	DD		C	Resistor(1/16W 20KΩ ±5%) [R193,R200,R214,R215,R216] ㊦㊦
	VRS-CZ1JD203J	AA	DD		C	Resistor(1/16W 20KΩ ±5%) [R220,R221] ㊦㊦
111	VRS-CZ1JD220J	AA	DD		C	Resistor(1/16W 22Ω ±5%) [R7] ㊦㊦
112	VRS-CZ1JD241J	AA	DD		C	Resistor(1/16W 240KΩ ±5%) [R94,R93] ㊦㊦
114	VRS-CZ1JD272J	AA	DD		C	Resistor(1/16W 2.7KΩ ±5%) [R139] ㊦㊦
115	VRS-CZ1JD301J	AA	DD		C	Resistor(1/16W 300Ω ±5%) [R109,R117,R198,R199] ㊦㊦
116	VRS-CZ1JD302F	AA	DD		C	Resistor(1/16W 3KΩ ±1%) [R127] ㊦㊦
117	VRS-CZ1JD303J	AA	DD		C	Resistor(1/16W 30KΩ ±5%) [R124,R125] ㊦㊦
118	VRS-CZ1JD330J	AA	DD		C	Resistor(1/16W 33Ω ±5%) [R25,R26,R27,R28,R29] ㊦㊦
	VRS-CZ1JD330J	AA	DD		C	Resistor(1/16W 33Ω ±5%) [R31,R33,R40,R48,R39] ㊦㊦
119	VRS-CZ1JD470J	AA	DD		C	Resistor(1/16W 47Ω ±5%) [R20,R23] ㊦㊦
120	VRS-CZ1JD471J	AA	DD		C	Resistor(1/16W 470Ω ±5%) [R186,R188,R189,R190,R191] ㊦㊦
	VRS-CZ1JD471J	AA	DD		C	Resistor(1/16W 470Ω ±5%) [R192,R205,R206,R207,R208] ㊦㊦
	VRS-CZ1JD471J	AA	DD		C	Resistor(1/16W 470Ω ±5%) [R209,R210] ㊦㊦
121	VRS-CZ1JD473J	AA	DD		C	Resistor(1/16W 47KΩ ±5%) [R79,R101,R132,R133] ㊦㊦
122	VRS-CZ1JD752F	AA	DD		C	Resistor(1/16W 7.5KΩ ±1%) [R88] ㊦㊦
124	VRS-HT3DA102J	AA	DD		C	Resistor(2W 1.0KΩ ±5%) [R141] ㊦㊦
126	VRS-HT3DAR22J	AA	DD		C	Resistor(2W 0.22Ω ±5%) [R140] ㊦㊦
127	VS2SB1197/-1	AC	DJ		B	Transistor(2SB1197) [Q3] トランジスタ
128	VSKRA119S+-1	AB	DJ		B	Transistor(KRA119S) [Q2] トランジスタ
129	VSKTA1505S+-1	AC	DJ		B	Transistor(KTA1505S) [Q1] トランジスタ
130	VSPA502T/-1	AD	DJ		B	Transistor(UPA502T) [Q4] トランジスタ
	(Unit)					
901	CPWBX0128QS31	CA	TR		E	MCU PWB [AR-M160] MCU 基板
	CPWBX0128QS32	CA	TV		E	MCU PWB [AR-M205] MCU 基板
	CPWBX0128QS33	CA	TR		E	MCU PWB [AR-5220] MCU 基板
	CPWBX0128QS34	CA	TV		E	MCU PWB [AR-200M] MCU 基板
	CPWBX0128QS36	CA	TV		E	MCU PWB [AR-160M] MCU 基板

2 CCD PWB

NO.	PARTS CODE	PRICE RANK		NEW MARK	PART RANK	DESCRIPTION
		Ex.	Ja.			
1	QCNCW0024QSZZ	AF	DS		C	Connector(32pin) [CN1] コネクター
2	RFILZ0004QSZZ	AM	EG		C	Filter(ZJSR5101-223) [L1,L2,L3,L4] フィルタ
3	RMPTW4100QCJJ	AA	DD		B	Block resistor(10Ω×4) [BR101,BR102] ブロック抵抗
4	VCCCCZ1HH101J	AA	DD		C	Capacitor(50WV 100pF) [C107,C108,C109] コンデンサ
6	VCCCCZ1HH470J	AA	DD		C	Capacitor(50WV 47pF) [C126,C128,C122,C124] コンデンサ
	VCCCCZ1HH470J	AA	DD		C	Capacitor(50WV 47pF) [C125,C127,C121,C123] コンデンサ
7	VCEAJA1CW226M	AB	DD		C	Capacitor(16WV 22μF) [C5,C4,C1,C8,C7,C6,C3] コンデンサ
8	VCEAJA1EW226M	AB	DD		C	Capacitor(25WV 22μF) [C2] コンデンサ
9	VCKYCZ1CF104Z	AB	DD		C	Capacitor(16WV 0.1μF) [C111,C110,C139,C112,C114] コンデンサ
	VCKYCZ1CF104Z	AB	DD		C	Capacitor(16WV 0.1μF) [C115,C138,C137,C141,C140] コンデンサ
	VCKYCZ1CF104Z	AB	DD		C	Capacitor(16WV 0.1μF) [C129,C116,C132,C145,C130] コンデンサ
	VCKYCZ1CF104Z	AB	DD		C	Capacitor(16WV 0.1μF) [C105,C104,C102,C131,C103] コンデンサ
	VCKYCZ1CF104Z	AB	DD		C	Capacitor(16WV 0.1μF) [C133,C134,C106,C135,C136] コンデンサ
	VCKYCZ1CF104Z	AB	DD		C	Capacitor(16WV 0.1μF) [C144,C143,C118] コンデンサ
11	VH174VHCT04FT	AF	DS		B	IC(74VHCT04FT) [IC104] IC
15	VRS-CZ1JD000J	AA	DD		C	Resistor(1/16W 0Ω ±5%) [R138] 抵抗
16	VRS-CZ1JD100J	AA	DD		C	Resistor(1/16W 10Ω ±5%) [R153,R111,R154] 抵抗
	VRS-CZ1JD100J	AA	DD		C	Resistor(1/16W 10Ω ±5%) [R112,R155,R113] 抵抗
17	VRS-CZ1JD101J	AA	DD		C	Resistor(1/16W 100Ω ±5%) [R148,R145,R143,R150,R151] 抵抗
18	VRS-CZ1JD202J	AA	DD		C	Resistor(1/16W 2.0KΩ ±5%) [R146,R142,R140] 抵抗
19	VRS-CZ1JD330J	AA	DD		C	Resistor(1/16W 33Ω ±5%) [R128,R119,R152,R110,R156] 抵抗
	VRS-CZ1JD330J	AA	DD		C	Resistor(1/16W 33Ω ±5%) [R114,R118,R157,R115,R125] 抵抗
	VRS-CZ1JD330J	AA	DD		C	Resistor(1/16W 33Ω ±5%) [R109,R122,R134,R133,R132] 抵抗
	VRS-CZ1JD330J	AA	DD		C	Resistor(1/16W 33Ω ±5%) [R131,R130,R129] 抵抗

3 COPE OPE PWB

NO.	PARTS CODE	PRICE RANK		NEW MARK	PART RANK	DESCRIPTION
		Ex.	Ja.			
2	QSW-P0001ESZZ	AC	DJ		B	Tact swtch(SKQNA010) [KEY16-44] タクト SW
4	RH-TX0003ESZZ	AC	DJ		B	Transistor(KRA225S) [Q2,Q3,Q4] トランジスタ
6	VCCCCY1HH201J	AA	DD		C	Capacitor(50WV 200pF) [C4,C5,C7,C8] コンデンサ
7	VCEAJU1CW476M	AB	DD		C	Capacitor(16WV 47uF) [C1,C2] コンデンサ
8	VCKYCY1CB104K	AB	DD		C	Capacitor(16WV 0.1uF) [C3,C6,C9,C11] コンデンサ
	VCKYCY1CB104K	AB	DD		C	Capacitor(16WV 0.1uF) [C20,C22] コンデンサ
9	VHDDSS133//--1	AA	DD		B	Diode(1SS133) [D1,D2,D3,D4] ダイオード
	VHDDSS133//--1	AA	DD		B	Diode(1SS133) [D5,D6] ダイオード
10	VHi74HC151M-1	AD	DJ		B	IC(74HC151M) [IC1] IC
11	VHiLC7935//--1	AN	EQ		B	IC(LC7935) [IC2] IC
12	VHiNE555//--1	AG	DX		B	IC(NE555) [IC3] IC
13	VHP1LHEE-002A	AC	DJ		B	LED (Red)(1LHEE-002A) [LED28,LED29,LED30,LED32] LED 7カ
	VHP1LHEE-002A	AC	DJ		B	LED (Red)(1LHEE-002A) [LED33,LED35,LED36,LED41] LED 7カ
	VHP1LHEE-002A	AC	DJ		B	LED (Red)(1LHEE-002A) ()[LED64] LED 7カ
14	VHP1LHLE-002A	AC	DJ		B	LED(Green)(LTL-1LHLE-002A) [LED16,LED17,LED18,LED19,LED20] LED 5カ
	VHP1LHLE-002A	AC	DJ		B	LED(Green)(LTL-1LHLE-002A) [LED21,LED22,LED23,LED24,LED25] LED 5カ
	VHP1LHLE-002A	AC	DJ		B	LED(Green)(LTL-1LHLE-002A) [LED26,LED27,LED31,LED34,LED37] LED 5カ
	VHP1LHLE-002A	AC	DJ		B	LED(Green)(LTL-1LHLE-002A) [LED38,LED39,LED40,LED42,LED43] LED 5カ
	VHP1LHLE-002A	AC	DJ		B	LED(Green)(LTL-1LHLE-002A) [LED44,LED45,LED46,LED47,LED48] LED 5カ
	VHP1LHLE-002A	AC	DJ		B	LED(Green)(LTL-1LHLE-002A) [LED50,LED51,LED52,LED53,LED54] LED 5カ
	VHP1LHLE-002A	AC	DJ		B	LED(Green)(LTL-1LHLE-002A) [LED56,LED57,LED58,LED59,LED60] LED 5カ
	VHP1LHLE-002A	AC	DJ		B	LED(Green)(LTL-1LHLE-002A) [LED61,LED62] LED 2カ
	VHP1LHLE-002A	AC	DJ		B	LED(Green)(LTL-1LHLE-002A) [Except AR-160M/AR-M160(Other Countries)][LED49,LED55] LED 2カ
	VHP1LHLE-002A	AC	DJ		B	LED(Green)(LTL-1LHLE-002A) [Except AR-M205(U.S.A,Canada,U.kingdom,Europe)][LED63] LED 2カ
15	VHP3650AG2J-1	AL	EB		B	LED(7SEGMENT)(LTC-3650AG-02J) [LEDM] LED(7SEGMENT)
16	VRS-CY1JD000J	AA	DD		C	Resistor(1/16W 0Ω ±5%) [R44] 7カ
17	VRS-CY1JD101J	AA	DD		C	Resistor(1/16W 100Ω ±5%) [R52-55,R60-63] 7カ
18	VRS-CY1JD102J	AA	DD		C	Resistor(1/16W 1.0KΩ ±5%) [R7,R10,R27,R30,R42] 7カ
	VRS-CY1JD102J	AA	DD		C	Resistor(1/16W 1.0KΩ ±5%) [R45,R57,R58,R59] 7カ
19	VRS-CY1JD103J	AA	DD		C	Resistor(1/16W 10KΩ ±5%) [R8,R11,R28,R31,R41] 7カ
20	VRS-CY1JD151J	AA	DD		C	Resistor(1/16W 150Ω ±5%) [R1,R2,R3,R5,R6,R9] 7カ
	VRS-CY1JD151J	AA	DD		C	Resistor(1/16W 150Ω ±5%) [R12,R13,R14,R15,R16] 7カ
	VRS-CY1JD151J	AA	DD		C	Resistor(1/16W 150Ω ±5%) [R17,R18,R19,R20,R21] 7カ
	VRS-CY1JD151J	AA	DD		C	Resistor(1/16W 150Ω ±5%) [R22,R23,R24,R25,R26] 7カ
	VRS-CY1JD151J	AA	DD		C	Resistor(1/16W 150Ω ±5%) [R29,R32,R33,R34,R35] 7カ
	VRS-CY1JD151J	AA	DD		C	Resistor(1/16W 150Ω ±5%) [R36,R37,R38,R39,R68] 7カ
21	VRS-CY1JD202J	AA	DD		C	Resistor(1/16W 2.0KΩ ±5%) [R48,R49,R50,R51,R64] 7カ
	VRS-CY1JD202J	AA	DD		C	Resistor(1/16W 2.0KΩ ±5%) [R65,R66,R67] 7カ
22	VRS-CY1JD244J	AA	DD		C	Resistor(1/16W 240KΩ ±5%) [R40] 7カ

### 3 COPE OPE PWB

NO.	PARTS CODE	PRICE RANK		NEW MARK	PART RANK	DESCRIPTION
		Ex.	Ja.			
23	VRS-CY1JD471J	AA	DD		C	Resistor(1/16W 470Ω ±5%) [R4,R47] 抵抗
24	VRS-CY1JD511J	AA	DD		C	Resistor(1/16W 510Ω ±5%) [R56] 抵抗
25	VSDTC143ZKA-1	AC	DJ		B	Transistor(DTC143ZKA) [Q5] トランジスタ

### 4 I/F PWB

NO.	PARTS CODE	PRICE RANK		NEW MARK	PART RANK	DESCRIPTION
		Ex.	Ja.			
1	DHAi-0310QSZZ	AB	DJ		C	IF GND harness IF GND ハーネス
2	QCNCW0078QSZZ	AF	DS		C	Connector(35Pin) [CN403] コネクタ
3	QSOCN0002ESZZ	AH	DX		C	Connector(36Pin)(RBE42-36K1153) [CN401] コネクタ
4	QSOCN0005ESZZ	AE	DS		C	Connector(4Pin)(UBR23-4K2200) [CN402] コネクタ
5	RH-DX0001ESZZ	AC	DJ		B	Diode(11EQS06-TA1B2) [D401] ダイオード
6	RH-iX0005ESZZ	AE	DS		B	IC(IX0005ES) [IC402] IC
7	VCCCCY1HH101J	AA	DD		C	Capacitor(50WV 100pF) [C404,C405,C406,C407,C408] コンデンサ
	VCCCCY1HH101J	AA	DD		C	Capacitor(50WV 100pF) [C409,C410,C411,C412,C413] コンデンサ
	VCCCCY1HH101J	AA	DD		C	Capacitor(50WV 100pF) [C414,C415,C417,C418,C419] コンデンサ
	VCCCCY1HH101J	AA	DD		C	Capacitor(50WV 100pF) [C422,C426] コンデンサ
8	VCCCCY1HH331J	AB	DD		C	Capacitor(50WV 330pF) [C416] コンデンサ
9	VCCCCY1HH471J	AA	DD		C	Capacitor(50WV 470pF) [C435-C440] コンデンサ
10	VCEAGA1CW476M	AB	DD		C	Capacitor(16WV 47μF) [C401,C402] コンデンサ
11	VCKYCY1CF104Z	AA	DD		C	Capacitor(16WV 0.1μF) [C403,C420,C421,C423,C424] コンデンサ
	VCKYCY1CF104Z	AA	DD		C	Capacitor(16WV 0.1μF) [C425,C427] コンデンサ
12	VHEUDZS6.2B-1	AC	DJ		B	Zener diode(UDZS6.2B) [D402] ヴェナダ・ダイオード
13	VHi74LVX16128	AP	EQ		B	IC(74LVX16128) [IC403] IC
14	VHiUSB11AMX-1	AH	DX		B	IC(USB1T11AMX) [IC401] IC
15	VRS-CY1JD000J	AA	DD		C	Resistor(1/16W 0Ω ±5%) [R432] 抵抗
16	VRS-CY1JD103J	AA	DD		C	Resistor(1/16W 10KΩ ±5%) [R424,R425,R426] 抵抗
	VRS-CY1JD103J	AA	DD		C	Resistor(1/16W 10KΩ ±5%) [R427,R428,R429] 抵抗
17	VRS-CY1JD152J	AA	DD		C	Resistor(1/16W 1.5KΩ ±5%) [R423] 抵抗
18	VRS-CY1JD220J	AA	DD		C	Resistor(1/16W 22Ω ±5%) [R405,R406,R407,R408,R409] 抵抗
	VRS-CY1JD220J	AA	DD		C	Resistor(1/16W 22Ω ±5%) [R410,R411,R412,R413,R414] 抵抗
	VRS-CY1JD220J	AA	DD		C	Resistor(1/16W 22Ω ±5%) [R415,R416,R417,R418,R419] 抵抗
	VRS-CY1JD220J	AA	DD		C	Resistor(1/16W 22Ω ±5%) [R421,R422] 抵抗
19	VRS-CY1JD240J	AA	DD		C	Resistor(1/16W 24Ω ±5%) [R402,R403,R430] 抵抗
20	VRS-CY1JD332J	AA	DD		C	Resistor(1/16W 3.3KΩ ±5%) [R420] 抵抗
	(Unit)					
901	CPWBF0114QSE3	BA	FX		E	I/F PWB I/F PWB

### 5 SCAN OPE PWB

NO.	PARTS CODE	PRICE RANK		NEW MARK	PART RANK	DESCRIPTION
		Ex.	Ja.			
2	QSW-P0001ESZZ	AC	DJ		B	Tact swtch(SKQNA010) [KEY1,KEY2,KEY3,KEY4,KEY5] タクト SW
	QSW-P0001ESZZ	AC	DJ		B	Tact swtch(SKQNA010) [KEY6,KEY7,KEY8,KEY10,KEY11] タクト SW
	QSW-P0001ESZZ	AC	DJ		B	Tact swtch(SKQNA010) [KEY12,KEY13,KEY14,KEY15] タクト SW
	QSW-P0001ESZZ	AC	DJ		B	Tact swtch(SKQNA010) (AR-M205 only)[KEY9] タクト SW
3	VHP1LHLE-002A	AC	DJ		B	LED(Green)(LTL-1LHLE-002A) [LED1,LED2,LED6,LED7,LED8] LED ミニ
	VHP1LHLE-002A	AC	DJ		B	LED(Green)(LTL-1LHLE-002A) [LED9,LED10,LED11,LED12] LED ミニ
	VHP1LHLE-002A	AC	DJ		B	LED(Green)(LTL-1LHLE-002A) [LED13,LED14,LED15] LED ミニ
	VHP1LHLE-002A	AC	DJ		B	LED(Green)(LTL-1LHLE-002A) (AR-M205 only)[LED3,LED4,LED5] LED ミニ

### 6 TRAY PWB

NO.	PARTS CODE	PRICE RANK		NEW MARK	PART RANK	DESCRIPTION
		Ex.	Ja.			
1	QCNCM2401SC0F	AB	DJ		C	Connector(6pin) [CN3] コネクタ
2	QCNCM7014SC0C	AA	DD		C	Connector(3pin) [CN4,CN5] コネクタ
3	QCNCP0340QCZZ	AC	DJ		C	Connector(3pin) [CN2] コネクタ
4	QCNCW1124LC1C	AC	DJ		C	Connector(3pin) [CN1] コネクタ
5	VCEAGA1VW476M	AB	DD		C	Capacitor(35WV 47μF) [C1] コンデンサ
6	VHEMTZJ22B/-1	AA	DD		B	Zener diode(MTZJ22B) [D1] ヴェナダ・ダイオード
8	VRD-HT2EY221J	AA	DD		C	Resistor(1/4W 220Ω ±5%) [R1] 抵抗
	(Unit)					
901	CPWBF0129QSE1	AQ	EQ		E	Tray PWB トレイ PWB

# 7 SPF/RSPF INTERFACE PWB(Option AR-SP6/RP6)

NO.	PARTS CODE	PRICE RANK		NEW MARK	PART RANK	DESCRIPTION
		Ex.	Ja.			
2	QCNCM0804FCZZ	AE	DS		C	Connector(20pin) [CN6] コネクタ
3	QCNCM0809FCZZ	AE	DS		C	Connector(26pin) [CN5] コネクタ
4	QCNCM2401SC0C	AB	DJ		C	Connector(3pin) [CN1] コネクタ
5	QCNCM7014SC0B	AD	DJ		C	Connector(2pin) [AR-RP6 only][CN4] コネクタ
6	QCNCM7014SC0C	AA	DD		C	Connector(3pin) [CN7] コネクタ
7	QCNCM7014SC0G	AB	DD		C	Connector(7pin) [CN3] コネクタ
8	QCNCM0341QCZZ	AC	DJ		C	Connector(3pin) [CN2] コネクタ
9	VCEAGA1CW106M	AA	DD		C	Capacitor(16WV 10μF) [C2,C3] コンデンサ
10	VCEAZA1VW476M	AC	DD		C	Capacitor(35WV 47μF) [C1] コンデンサ
11	VCKYCY1EF104Z	AA	DD		C	Capacitor(25WV 0.1μF) [C101,C102,C108,C109,C112] コンデンサ
	VCKYCY1EF104Z	AA	DD		C	Capacitor(25WV 0.1μF) [C116,C120,C127,C128] コンデンサ
12	VCKYCY1HB102K	AA	DD		C	Capacitor(50WV 1000pF) [C117,C118,C119,C121,C122] コンデンサ
	VCKYCY1HB102K	AA	DD		C	Capacitor(50WV 1000pF) [C123,C124,C125,C126] コンデンサ
13	VCKYCY1HB222K	AA	DD		C	Capacitor(50WV 2200pF) [C107,C113] コンデンサ
14	VCKYCY1HB332K	AA	DD		C	Capacitor(50WV 3300pF) [C110,C111] コンデンサ
15	VCKYCY1HF473Z	AA	DD		C	Capacitor(50WV 0.047μF) [C103,C104,C105,C106] コンデンサ
	VCKYCY1HF473Z	AA	DD		C	Capacitor(50WV 0.047μF) [C114,C115] コンデンサ
16	VHEUDZS5.6B-1	AC	DJ		B	Zener diode(UDZS5.6B) [ZD101,ZD102,ZD103,ZD104] ヴェナツァイオト
17	VH174HC151M-1	AD	DJ		B	IC(74HC151M) [IC101] IC
18	VH1MTD13611-1	AR	EQ		B	IC(MTD1361-4101) [IC1] IC
19	VH1TD62003AP1	AG	DX		B	IC(TD620003AP1) [IC2] IC
20	VHV1CPN38//--1	AF	DS		B	IC protector(ICPN38) [F1] IC プロテクタ
21	VRS-CY1JD102J	AA	DD		C	Resistor(1/16W 1.0KΩ ±5%) [R104,R105] 抵抗
22	VRS-CY1JD103J	AA	DD		C	Resistor(1/16W 10KΩ ±5%) [R111,R112,R113,R114,R115,R116] 抵抗
	VRS-CY1JD103J	AA	DD		C	Resistor(1/16W 10KΩ ±5%) [R117] 抵抗
23	VRS-CY1JD111F	AA	DD		C	Resistor(1/16W 110Ω ±1%) [R110] 抵抗
24	VRS-CY1JD242J	AA	DD		C	Resistor(1/16W 2.4KΩ ±5%) [R102,R106] 抵抗
25	VRS-CY1JD391F	AA	DD		C	Resistor(1/16W 390Ω ±1%) [R108] 抵抗
26	VRS-CY1JD431F	AA	DD		C	Resistor(1/16W 430Ω ±1%) [R109] 抵抗
27	VRS-CY1JD471J	AA	DD		C	Resistor(1/16W 470Ω ±5%) [R118,R119] 抵抗
28	VRS-CY1JD621F	AA	DD		C	Resistor(1/16W 620Ω ±1%) [R103] 抵抗
29	VRS-CY1JD752J	AA	DD		C	Resistor(1/16W 7.5KΩ ±5%) [R101,R107] 抵抗
30	VRS-RE3AA1R5J	AB	DD		C	Resistor(1W 1.5Ω ±5%) [R1,R2] 抵抗
31	VSDTC114EKA-1	AC	DJ		B	Transistor(DTC114EKA) [Q101,Q102] トランジスタ
	(Unit)					
901	CPWBF0084QSE3	BA	FX		E	SPF interface PWB [AR-SP6] SPF 中継基板
	CPWBF0084QSE4	BA	FX		E	RSPF interface PWB [AR-RP6] RSPF 中継基板

# 8 SPF SENSOR PWB(Option AR-SP6/RP6)

NO.	PARTS CODE	PRICE RANK		NEW MARK	PART RANK	DESCRIPTION
		Ex.	Ja.			
1	QCNCM7014SC0G	AB	DD		C	Connector(7pin) [CN101] コネクタ
2	VCKYPA1HF223Z	AA	DD		C	Capacitor(50WV 22000pF) [C101] コンデンサ
3	VHPGP1S58V//--1	AE	DS		B	Photo transistor(GP1S58V) [PT101,PT102,PT103,PT104,PT105] フォトリソクタ
4	VRD-HT2EY121J	AA	DD		C	Resistor(1/4W 120Ω ±5%) [R101,R102] 抵抗
5	VRD-HT2EY241J	AA	DD		C	Resistor(1/4W 240Ω ±5%) [R103] 抵抗
	(Unit)					
901	CPWBF0017QSE2	AR	EQ		E	SPF Sensor PWB SPF センサ基板

# 9 CASSETTE PWB(Option AR-D24/D25)

NO.	PARTS CODE	PRICE RANK		NEW MARK	PART RANK	DESCRIPTION
		Ex.	Ja.			
1	QCNCM0877FCZZ	AF	DS		C	Connector(20pin) [AR-D24 only][CN-C] コネクタ
2	QCNCM0923FC16	AF	DS		C	Connector(16pin) [CN-B] コネクタ
3	QCNCM0923FC22	AF	DS		C	Connector(22pin) [CN-A] コネクタ
4	VCEAGA1VW476M	AB	DD		C	Capacitor(35WV 47μF) [C1-3] コンデンサ
5	VCKYTV1HB102K	AA	ZZ		C	Capacitor(50WV 1000PF) [C22-24] コンデンサ
6	VCKYTV1HB222K	AA	DD		C	Capacitor(50WV 2200pF) [C4-7,C12-14,C19-21] コンデンサ
	VCKYTV1HB222K	AA	DD		C	Capacitor(50WV 2200pF) [AR-D25 only][C8-10] コンデンサ
7	VCKYTV1HF104Z	AA	DD		C	Capacitor(50WV 0.10μF) [C11,C15,C16-18] コンデンサ
8	VHDDAN202K//--1	AB	DD		B	Diode(DAN202K) [D1,2] ダイオード
9	VHDDAN217//--1	AC	DD		B	Diode(DAN217) [AR-D25 only][D5] ダイオード
10	VHDDAP202K//--1	AB	DD		B	Diode(DAP202K) [D3,4] ダイオード
11	VH1TC74HC151F	AG	DS		B	IC(TC74HC151F) [IC1] IC
	VH1TC74HC151F	AG	DS		B	IC(TC74HC151F) [AR-D25 only][IC3] IC
12	VH1ULN2003AN1	AE	DJ		B	IC(ULN2003A) [IC2] IC
13	VHV1CPN38//--1	AF	DS		B	IC protector(ICPN38) [ICP1] IC プロテクタ
14	VRS-TP2BD000J	AA	DD		C	Resistor(1/8W 0Ω ±5%) [J1-23,J25,J26] 抵抗
15	VRS-TS2AD103J	AA	DD		C	Resistor(1/10W 10KΩ ±5%) [R1-4] 抵抗
	VRS-TS2AD103J	AA	DD		C	Resistor(1/10W 10KΩ ±5%) [AR-D25 only][R5-8] 抵抗
	(Unit)					
901	CPWBF0019QSE5	AV	FG		E	1ST tray interface PWB [AR-D24] 1 段トレイ中継基板
	CPWBF0019QSE6	AW	FG		E	2ND tray interface PWB [AR-D25] 2 段トレイ中継基板

10 IMC2 PWB(Option AR-EB7)

NO.	PARTS CODE	PRICE RANK		NEW MARK	PART RANK	DESCRIPTION
		Ex.	Ja.			
1	QCNCM0877FCZZ	AF	DS		C	Connector(20pin) [CN1] コネクタ-
3	QSOCN0005ESZZ	AE	DS		C	Connector(UBR23-4K2200) [CN8] コネクタ-
4	QSOCZ0001QSZZ	AL	EB		C	Connector(DMM168-FLAA2-3A133) [CN6] コネクタ-
5	RCILF1097ACZZ	AG	DS		C	Coil(DLW21SN900SQ2L) [L5] コイル
6	RCILF2049HCZZ	AB	DJ		C	Coil(BLM21P600SG) [L6,L4] コイル
11	RH-IX0027QSZZ	AM	EG		B	IC(74VCX16244) [IC28,IC29] IC
12	RH-IX0028QSZZ	AM	EG		B	IC(74VCX16245) [IC26] IC
13	RMPTR4000ACZZ	AB	DD		B	Block resistor(0Ω×4) [BR12, BR13, BR14, BR15, BR16] ブロック抵抗
	RMPTR4000ACZZ	AB	DD		B	Block resistor(0Ω×4) [BR17, BR36, BR37, BR38, BR42] ブロック抵抗
	RMPTR4000ACZZ	AB	DD		B	Block resistor(0Ω×4) [BR400, BR401, BR402, BR403] ブロック抵抗
	RMPTR4000ACZZ	AB	DD		B	Block resistor(0Ω×4) [BR404, BR405] ブロック抵抗
14	RMPTR4100ACZZ	AB	DD		B	Block resistor(10Ω×4) [BR1, BR2, BR3, BR4, BR5] ブロック抵抗
15	RMPTR4103ACZZ	AB	DD		B	Block resistor(10KΩ×4) [BR39, BR40, BR41, BR43] ブロック抵抗
16	RMPTR4330ACZZ	AB	DD		B	Block resistor(33Ω×4) [BR11] ブロック抵抗
17	TLABZ4201FCZZ	AC	DJ		D	Version label [for IC2] バージョンラベル
18	VCCCCZ1HH101J	AA	DD		C	Capacitor(50WV 100pF) [C60] コンデンサ
19	VCCCCZ1HH120J	AA	DD		C	Capacitor(50WV 12pF) [C44, C50] コンデンサ
21	VCCCCZ1HH390J	AA	DD		C	Capacitor(50WV 39pF) [C66] コンデンサ
22	VCCCCZ1HH680J	AA	DD		C	Capacitor(50WV 68p) [C401, C402, C403, C404, C405] コンデンサ
23	VCCUCY1AJ105Z	AC	DD		C	Capacitor(10WV 1.0μF) [C8, C5] コンデンサ
24	VCEAGA1CW106M	AA	DD		C	Capacitor(16WV 10μF) [C11, C21, C26, C35, C45] コンデンサ
	VCEAGA1CW106M	AA	DD		C	Capacitor(16WV 10μF) [C87, C89, C119] コンデンサ
25	VCEAGA1CW476M	AB	DD		C	Capacitor(16WV 47μF) [C3, C6, C54, C56, C69, C70] コンデンサ
26	VCKYCZ1CB103K	AA	DD		C	Capacitor(16WV 0.010μF) [C4, C7, C58, C59, C81, C82] コンデンサ
	VCKYCZ1CB103K	AA	DD		C	Capacitor(16WV 0.010μF) [C83, C84, C85, C86, C98] コンデンサ
27	VCKYCZ1CF104Z	AB	DD		C	Capacitor(16WV 0.1μF) [C2, C12, C13, C14, C15] コンデンサ
	VCKYCZ1CF104Z	AB	DD		C	Capacitor(16WV 0.1μF) [C16, C17, C18, C19, C20] コンデンサ
	VCKYCZ1CF104Z	AB	DD		C	Capacitor(16WV 0.1μF) [C22, C23, C24, C25, C27] コンデンサ
	VCKYCZ1CF104Z	AB	DD		C	Capacitor(16WV 0.1μF) [C28, C29, C30, C31, C32] コンデンサ
	VCKYCZ1CF104Z	AB	DD		C	Capacitor(16WV 0.1μF) [C33, C34, C36, C37, C38] コンデンサ
	VCKYCZ1CF104Z	AB	DD		C	Capacitor(16WV 0.1μF) [C39, C40, C41, C42, C43] コンデンサ
	VCKYCZ1CF104Z	AB	DD		C	Capacitor(16WV 0.1μF) [C46, C47, C48, C49, C55] コンデンサ
	VCKYCZ1CF104Z	AB	DD		C	Capacitor(16WV 0.1μF) [C57, C64, C71, C72, C73] コンデンサ
	VCKYCZ1CF104Z	AB	DD		C	Capacitor(16WV 0.1μF) [C74, C75, C76, C77, C78] コンデンサ
	VCKYCZ1CF104Z	AB	DD		C	Capacitor(16WV 0.1μF) [C79, C80, C88, C90, C91] コンデンサ
	VCKYCZ1CF104Z	AB	DD		C	Capacitor(16WV 0.1μF) [C92, C93, C94, C95, C120] コンデンサ
	VCKYCZ1CF104Z	AB	DD		C	Capacitor(16WV 0.1μF) [C121, C122, C123, C124, C125] コンデンサ
	VCKYCZ1CF104Z	AB	DD		C	Capacitor(16WV 0.1μF) [C128, C129, C130, C131] コンデンサ
	28	VCKYCZ1HB222K	AA	DD		C
29	VHICY2305SC-1	AU	EZ		B	IC(CY2305SC) [IC6] IC
33	VRS-CY1JD000J	AA	DD		C	Resistor(1/16W 0Ω ±5%) [L1, L2, L3] 抵抗
34	VRS-CY1JD103J	AA	DD		C	Resistor(1/16W 10KΩ ±5%) [R420] 抵抗
35	VRS-CY1JD1R0J	AA	DD		C	Resistor(1/16W 1.0Ω ±5%) [R11, R14] 抵抗
36	VRS-CZ1JD000J	AA	DD		C	Resistor(1/16W 0Ω ±5%) [R4, R20, R29, R30, R31] 抵抗
	VRS-CZ1JD000J	AA	DD		C	Resistor(1/16W 0Ω ±5%) [R32, R33, R34, R35, R36] 抵抗
	VRS-CZ1JD000J	AA	DD		C	Resistor(1/16W 0Ω ±5%) [R37, R38, R39, R40, R42] 抵抗
	VRS-CZ1JD000J	AA	DD		C	Resistor(1/16W 0Ω ±5%) [R43, R44, R45, R46, R47] 抵抗
	VRS-CZ1JD000J	AA	DD		C	Resistor(1/16W 0Ω ±5%) [R48, R50, R51, R53, R54] 抵抗
	VRS-CZ1JD000J	AA	DD		C	Resistor(1/16W 0Ω ±5%) [R55, R58, R61, R62, R66] 抵抗
	VRS-CZ1JD000J	AA	DD		C	Resistor(1/16W 0Ω ±5%) [R67, R69, R70, R71, R83] 抵抗
	VRS-CZ1JD000J	AA	DD		C	Resistor(1/16W 0Ω ±5%) [R84, R85, R133, R136, R137] 抵抗
	VRS-CZ1JD000J	AA	DD		C	Resistor(1/16W 0Ω ±5%) [R138, R139, R140, R144, R400] 抵抗
37	VRS-CZ1JD100J	AA	DD		C	Resistor(1/16W 0Ω ±5%) [R405, R406, R415, R416] 抵抗
	VRS-CZ1JD100J	AA	DD		C	Resistor(1/16W 10Ω ±5%) [R1, R2, R3, R8, R9] 抵抗
38	VRS-CZ1JD100J	AA	DD		C	Resistor(1/16W 10Ω ±5%) [R56, R57, R59, R60, R63] 抵抗
	VRS-CZ1JD103J	AA	DD		C	Resistor(1/16W 10KΩ ±5%) [R21, R22, R24, R25, R26] 抵抗
	VRS-CZ1JD103J	AA	DD		C	Resistor(1/16W 10KΩ ±5%) [R122, R123, R124, R125, R127] 抵抗
	VRS-CZ1JD103J	AA	DD		C	Resistor(1/16W 10KΩ ±5%) [R128, R129, R131, R132, R407] 抵抗
	VRS-CZ1JD103J	AA	DD		C	Resistor(1/16W 10KΩ ±5%) [R408, R409, R410, R411, R412] 抵抗
39	VRS-CZ1JD123F	AA	DD		C	Resistor(1/16W 12KΩ ±1%) [R413, R414, R417, R419, R402] 抵抗
40	VRS-CZ1JD152J	AA	DD		C	Resistor(1/16W 12KΩ ±1%) [R143] 抵抗
41	VRS-CZ1JD472J	AA	DD		C	Resistor(1/16W 1.5KΩ ±5%) [R134] 抵抗
42	VRS-CZ1JD680J	AA	DD		C	Resistor(1/16W 4.7KΩ ±5%) [R5, R10, R17, R18, R19, R148] 抵抗
43	VRS-CZ1JD752F	AA	DD		C	Resistor(1/16W 68Ω ±5%) [R41] 抵抗
					C	Resistor(1/16W 7.5KΩ ±1%) [R401] 抵抗

# ■ 索引 (Index)

PARTS CODE	JAPAN ONLY ORDER CODE	NO.	PRICE R.		NEW	P/R
			Ex.	Ja.		
【C】						
CPWBF0017QSE2	578 684 1119	8-901	AR	EQ		E
CPWBF0019QSE5	578 684 1103	9-901	AV	FG		E
CPWBF0019QSE6	578 684 1114	9-901	AW	FG		E
CPWBF0084QSE3	578 684 1120	7-901	BA	FX		E
CPWBF0084QSE4	578 684 1121	7-901	BA	FX		E
CPWBF0114QSE3	578 684 1122	4-901	BA	FX		E
CPWBF0129QSE1	578 684 1123	6-901	AQ	EQ		E
CPWBX0128QS31	578 684 1105	1-901	CA	TR		E
CPWBX0128QS32	578 684 1108	1-901	CA	TV		E
CPWBX0128QS33	578 684 1135	1-901	CA	TR		E
CPWBX0128QS34	578 684 1106	1-901	CA	TV		E
CPWBX0128QS36	578 684 1128	1-901	CA	TV		E
【D】						
DHAi-0310QSZZ	578 542 0277	4- 1	AB	DJ		C
【Q】						
QCNCM0017QSZZ	572 510 1051	1- 4	AC	DJ		C
QCNCM0804FCZZ	572 510 0127	7- 2	AE	DS		C
QCNCM0809FCZZ	572 510 0672	7- 3	AE	DS		C
QCNCM0877FCZZ	572 510 0842	10- 1	AF	DS		C
〃	572 510 0842	1- 8	AF	DS		C
〃	572 510 0842	9- 1	AF	DS		C
QCNCM0923FC12	572 510 0939	1- 9	AE	DJ		C
QCNCM0923FC16	572 510 0868	9- 2	AF	DS		C
QCNCM0923FC22	572 510 0869	9- 3	AF	DS		C
QCNCM1005MCZZ	589 510 0004	1- 10	AB	DD		C
QCNCM1006MCZZ	589 510 0020	1- 11	AB	DD		C
QCNCM2334SC0B	595 510 0234	1- 12	AB	DD		C
QCNCM2401SC0C	595 510 0762	1- 13	AB	DJ		C
〃	595 510 0762	7- 4	AB	DJ		C
QCNCM2401SC0D	595 510 0090	1- 14	AC	DJ		C
QCNCM2401SC0F	595 510 0782	6- 1	AB	DJ		C
QCNCM7014SC0B	595 510 0337	7- 5	AD	DJ		C
QCNCM7014SC0C	595 510 0338	1- 15	AA	DD		C
〃	595 510 0338	6- 2	AA	DD		C
〃	595 510 0338	7- 6	AA	DD		C
QCNCM7014SC0D	595 510 0345	1- 16	AB	DD		C
QCNCM7014SC0E	595 510 0744	1- 17	AB	DJ		C
QCNCM7014SC0F	595 510 0346	1- 18	AB	DD		C
QCNCM7014SC0G	595 510 0347	7- 7	AB	DD		C
〃	595 510 0347	8- 1	AB	DD		C
QCNCM7014SC1C	595 510 0355	1- 19	AC	DD		C
QCNCP0340QCZZ	572 510 0921	6- 3	AC	DJ		C
QCNCP0341QCZZ	572 510 0922	7- 8	AC	DJ		C
QCNCW0024QSZZ	572 510 1056	1- 21	AF	DS		C
〃	572 510 1056	2- 1	AF	DS		C
QCNCW0077QSZZ	578 510 0330	1- 22	AK	DX		C
QCNCW0078QSZZ	578 510 0335	1- 23	AF	DS		C
〃	578 510 0335	4- 2	AF	DS		C
QCNCW0885FCZZ	572 510 0834	1- 26	AG	DX		C
QCNCW1124LC0D	572 510 1032	1- 27	AB	DJ		C
QCNCW1124LC0H	594 510 0507	1- 28	AC	DJ		C
QCNCW1124LC1C	594 510 0508	1- 29	AC	DJ		C
〃	594 510 0508	6- 4	AC	DJ		C
QSOcN0002ESZZ	578 527 0030	4- 3	AH	DX		C
QSOcN0005ESZZ	578 527 0032	10- 3	AE	DS		C
〃	578 527 0032	4- 4	AE	DS		C
QSOcZ0001QSZZ	578 527 0024	10- 4	AL	EB		C
QSOcZ0002QSZZ	578 527 0027	1- 31	AD	DJ		C
QSW-P0001ESZZ	578 530 0104	3- 2	AC	DJ		B
〃	578 530 0104	5- 2	AC	DJ		B
【R】						
RCiLF1097ACZZ	596 614 0611	10- 5	AG	DS		C
RCiLF2049HCZZ	567 614 0106	10- 6	AB	DJ		C
RCRSP0016QSZZ	578 616 0063	1- 32	AD	DJ		B
RFiLZ0004QSZZ	578 621 0030	1- 35	AM	EG		C
〃	578 621 0030	2- 2	AM	EG		C
RH-DX0001ESZZ	578 570 0169	4- 5	AC	DJ		B
RH-DZ00016FCZZ	572 570 0001	1- 36	AB	DD		B
RH-iX0001QSZZ	578 573 1147	1- 37	BD	GN		B
RH-iX0005ESZZ	578 573 1162	4- 6	AE	DS		B
RH-iX0027QSZZ	578 573 1352	10- 11	AM	EG		B
RH-iX0028QSZZ	578 573 1353	10- 12	AM	EG		B
RH-iX7001XCZZ	578 573 1347	1- 39	AQ	EQ		B
RH-TX0003ESZZ	578 576 0131	3- 4	AC	DJ		B
RMPTR4000ACZZ	567 631 0098	10- 13	AB	DD		B
RMPTR4100ACZZ	567 631 0099	10- 14	AB	DD		B
RMPTR4103ACZZ	567 631 0100	10- 15	AB	DD		B
RMPTR4330ACZZ	567 631 0109	10- 16	AB	DD		B

PARTS CODE	JAPAN ONLY ORDER CODE	NO.	PRICE R.		NEW	P/R
			Ex.	Ja.		
RMPTW4100QCJJ	572 631 0264	1-40	AA	DD		B
〃						
RMPTW4101QCJJ	521 631 0027	1-41	AB	DD		B
RMPTW4103QCJJ	571 631 0147	1-42	AB	DD		B
RMPTW4221QCJJ	523 631 0016	1-43	AA	DD		B
RMPTW4330QCJJ	567 631 0058	1-44	AB	DD		B
【T】						
TLABZ4201FCZZ	572 917 3231	10-17	AC	DJ		D
【V】						
VCCCCY1HH101J	507 591 5030	4-7	AA	DD		C
VCCCCY1HH201J	594 593 0050	3-6	AA	DD		C
VCCCCY1HH331J	594 593 0052	4-8	AB	DD		C
VCCCCY1HH471J	571 593 0210	4-9	AA	DD		C
VCCCCZ1HH101J	521 593 0028	10-18	AA	DD		C
〃						
〃						
VCCCCZ1HH120J	567 593 0312	10-19	AA	DD		C
〃						
VCCCCZ1HH150J	521 593 0029	1-47	AA	DD		C
VCCCCZ1HH220J	521 593 0023	1-48	AA	DD		C
VCCCCZ1HH330J	521 593 0034	1-49	AA	DD		C
VCCCCZ1HH390J	567 593 0313	10-21	AA	DD		C
VCCCCZ1HH470J	521 593 0025	2-6	AA	DD		C
VCCCCZ1HH680J	567 593 0316	10-22	AA	DD		C
VCCUCY1AJ105Z	596 593 0899	10-23	AC	DD		C
VCEAGA1CW106M	541 591 5281	10-24	AA	DD		C
〃						
〃						
VCEAGA1CW226M	541 591 5282	1-51	AB	DD		C
VCEAGA1CW476M	541 591 5090	10-25	AB	DD		C
〃						
〃						
VCEAGA1VW106M	572 594 0093	1-53	AA	DD		C
VCEAGA1VW476M	572 594 0091	1-54	AB	DD		C
〃						
〃						
VCEAJA1CW226M	578 594 0012	2-7	AB	DD		C
VCEAJA1EW226M	595 594 0103	2-8	AB	DD		C
VCEAJU1CW476M	596 594 0062	3-7	AB	DD		C
VCEAZA1VW476M	578 594 0149	7-10	AC	DD		C
VCKYCY1CB104K	567 593 0198	3-8	AB	DD		C
VCKYCY1CF104Z	571 593 0054	4-11	AA	DD		C
VCKYCY1EF104Z	507 591 5036	1-55	AA	DD		C
〃						
VCKYCY1HB102K	594 593 0044	1-56	AA	DD		C
〃						
VCKYCY1HB104K	595 593 1684	1-57	AA	DD		C
VCKYCY1HB222K	595 593 0027	1-58	AA	DD		C
〃						
VCKYCY1HB332K	595 593 1209	7-13	AA	DD		C
VCKYCY1HB473K	594 593 0330	1-59	AA	DD		C
VCKYCY1HF473Z	594 593 0207	7-15	AA	DD		C
VCKYCY1HB103K	595 593 1450	10-26	AA	DD		C
VCKYCY1CB223K	595 593 1451	1-60	AB	DD		C
VCKYCY1CF104Z	521 593 0017	10-27	AB	DD		C
〃						
VCKYCY1HB102K	521 593 0030	1-62	AA	DD		C
VCKYCY1HB222K	521 593 0032	10-28	AA	DD		C
VCKYCY1HB271K	596 593 1668	1-63	AA	DD		C
VCKYCY1HB471K	521 593 0033	1-64	AA	DD		C
VCKYCY1HB821K	578 593 0389	1-65	AC	DD		C
VCKYPA1HF223Z	572 593 0029	8-2	AA	DD		C
VCKYTV1HB102K	588 593 0008	9-5	AA	ZZ		C
VCKYTV1HB222K	596 593 0080	9-6	AA	DD		C
VCKYTV1HF104Z	578 593 0038	9-7	AA	DD		C
VHD1SS355/-1	595 570 0304	1-66	AB	DJ		B
VHDDAN202K/-1	500 570 5005	9-8	AB	DD		B
VHDDAN217/-1	500 570 5021	9-9	AC	DD		B
VHDDAP202K/-1	500 570 0037	9-10	AB	DD		B
VHDDSS133/-1	500 570 5006	1-67	AA	DD		B
〃						
VHDKDS120+-1	578 570 0175	1-68	AC	DJ		B
VHDKDS121+-1	578 570 0171	1-69	AC	DJ		B
VHDKDS226+-1	578 570 0172	1-70	AC	DJ		B
VHEMTZJ22B/-1	567 571 0006	1-71	AA	DD		B
〃						
VHEUDZ3.9B/-1	596 571 0169	1-72	AC	DJ		B
VHEUDZ5.6B/-1	567 571 0089	1-73	AC	DJ		B
VHEUDZS5.6B-1	594 571 0179	7-16	AC	DJ		B
VHEUDZS6.2B-1	567 571 0103	4-12	AC	DJ		B
VH129L0800BQS	578 573 1355	1-2	BD	GJ		B





## 注意

- ・ 電池を正しく交換しないと爆発を起こす危険がある。
- ・ 機器製造者が指定したものと同一型名のもの、又は、その同等の電池とのみ交換すること。
- ・ 使用済みの電池は、製造者の指示に従って処分すること。

### CAUTION FOR BATTERY REPLACEMENT

- (Danish) ADVARSEL !  
Lithiumbatteri – Eksplosionsfare ved fejlagtig håndtering.  
Udskiftning må kun ske med batteri  
af samme fabrikat og type.  
Levér det brugte batteri tilbage til leverandoren.
- (English) Caution !  
Danger of explosion if battery is incorrectly replaced.  
Replace only with the same or equivalent type  
recommended by the manufacturer.  
Dispose of used batteries according to manufacturer's instructions.
- (Finnish) VAROITUS  
Paristo voi räjähtää, jos se on virheellisesti asennettu.  
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan  
tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden  
mukaisesti.
- (French) ATTENTION  
Il y a danger d'explosion s' il y a remplacement incorrect  
de la batterie. Remplacer uniquement avec une batterie du  
même type ou d'un type équivalent recommandé par  
le constructeur.  
Mettre au rebut les batteries usagées conformément aux  
instructions du fabricant.
- (Swedish) VARNING  
Explosionsfara vid felaktigt batteribyte.  
Använd samma batterityp eller en ekvivalent  
typ som rekommenderas av apparattillverkaren.  
Kassera använt batteri enligt fabrikantens  
instruktion.
- (German) Achtung  
Explosionsgefahr bei Verwendung inkorrektter Batterien.  
Als Ersatzbatterien dürfen nur Batterien vom gleichen Typ oder  
vom Hersteller empfohlene Batterien verwendet werden.  
Entsorgung der gebrauchten Batterien nur nach den vom  
Hersteller angegebenen Anweisungen.

### CAUTION FOR BATTERY DISPOSAL

(For USA, CANADA)

#### "BATTERY DISPOSAL"

THIS PRODUCT CONTAINS A LITHIUM PRIMARY  
(MANGANESE DIOXIDE) MEMORY BACK-UP BATTERY  
THAT MUST BE DISPOSED OF PROPERLY. REMOVE THE  
BATTERY FROM THE PRODUCT AND CONTACT YOUR  
LOCAL ENVIRONMENTAL AGENCIES FOR INFORMATION  
ON RECYCLING AND DISPOSAL OPTIONS.

#### "TRAITEMENT DES PILES USAGÉES"

CE PRODUIT CONTIENT UNE PILE DE SAUVEGARDE DE  
MÉMOIRE LITHIUM PRIMAIRE (DIOXYDE DE MANGANESE)  
QUI DOIT ÊTRE TRAITÉE CORRECTEMENT. ENLEVEZ LA  
PILE DU PRODUIT ET PRENEZ CONTACT AVEC VOTRE  
AGENCE ENVIRONNEMENTALE LOCALE POUR DES  
INFORMATIONS SUR LES MÉTHODES DE RECYCLAGE ET  
DE TRAITEMENT.

# SHARP

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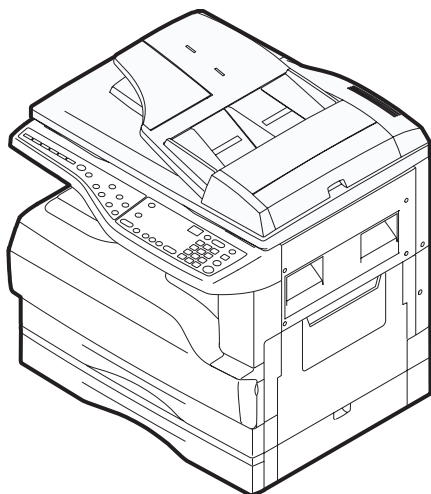
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**SHARP CORPORATION**  
**Digital Document Systems Group**  
**Products Quality Assurance Department**  
**Yamatokoriyama, Nara 639-1186, Japan**  
2003 August Printed in Japan ⓘ

# SHARP CIRCUIT DIAGRAM

CODE : 00ZARM205/C1/



## デジタル複合機 DIGITAL COPIER

**AR-200M** [Japan only]

**AR-160M** [Japan only]

**AR-M205** [Except Japan]

**AR-M160** [Except Japan]

**MODEL AR-5220** [Except Japan]

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安全性・信頼性確保のため部品は、必ず正規のものをご使用下さい。

△印の部品は、安全上重要な部品です。交換をする時は、安全および性能維持のため必ず指定の部品をご使用下さい。

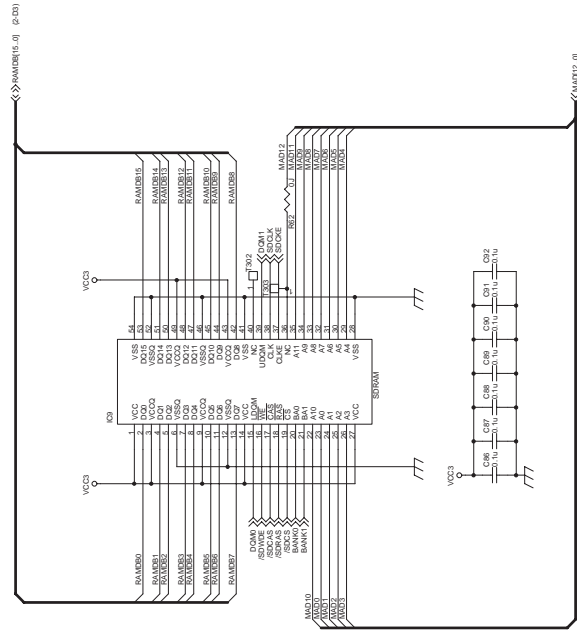
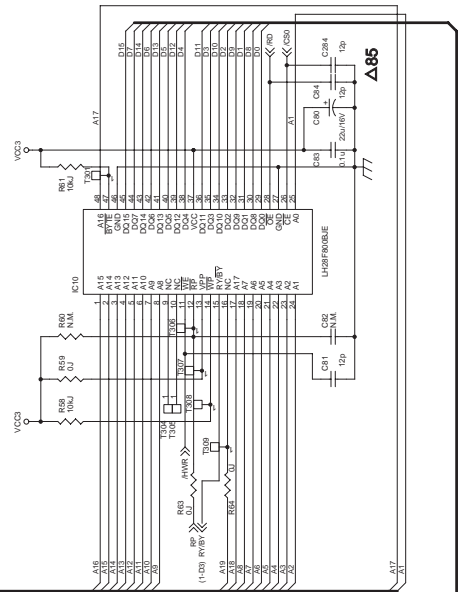
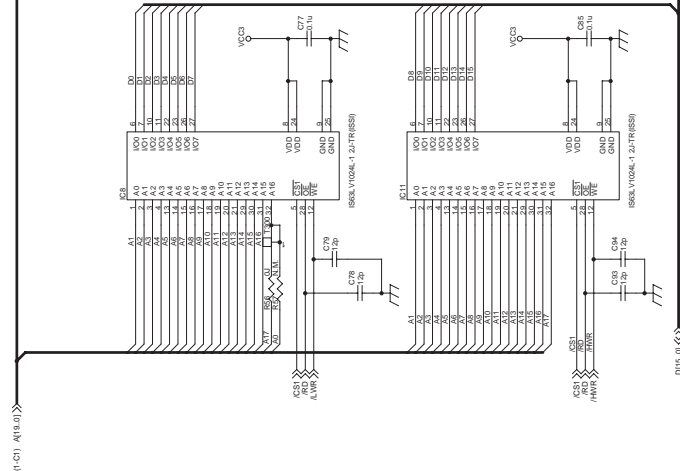
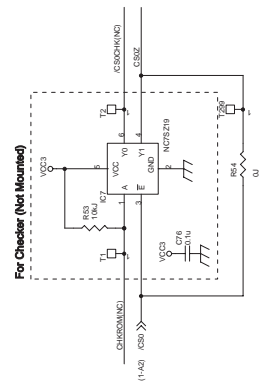
Parts marked with "△" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

## CPU



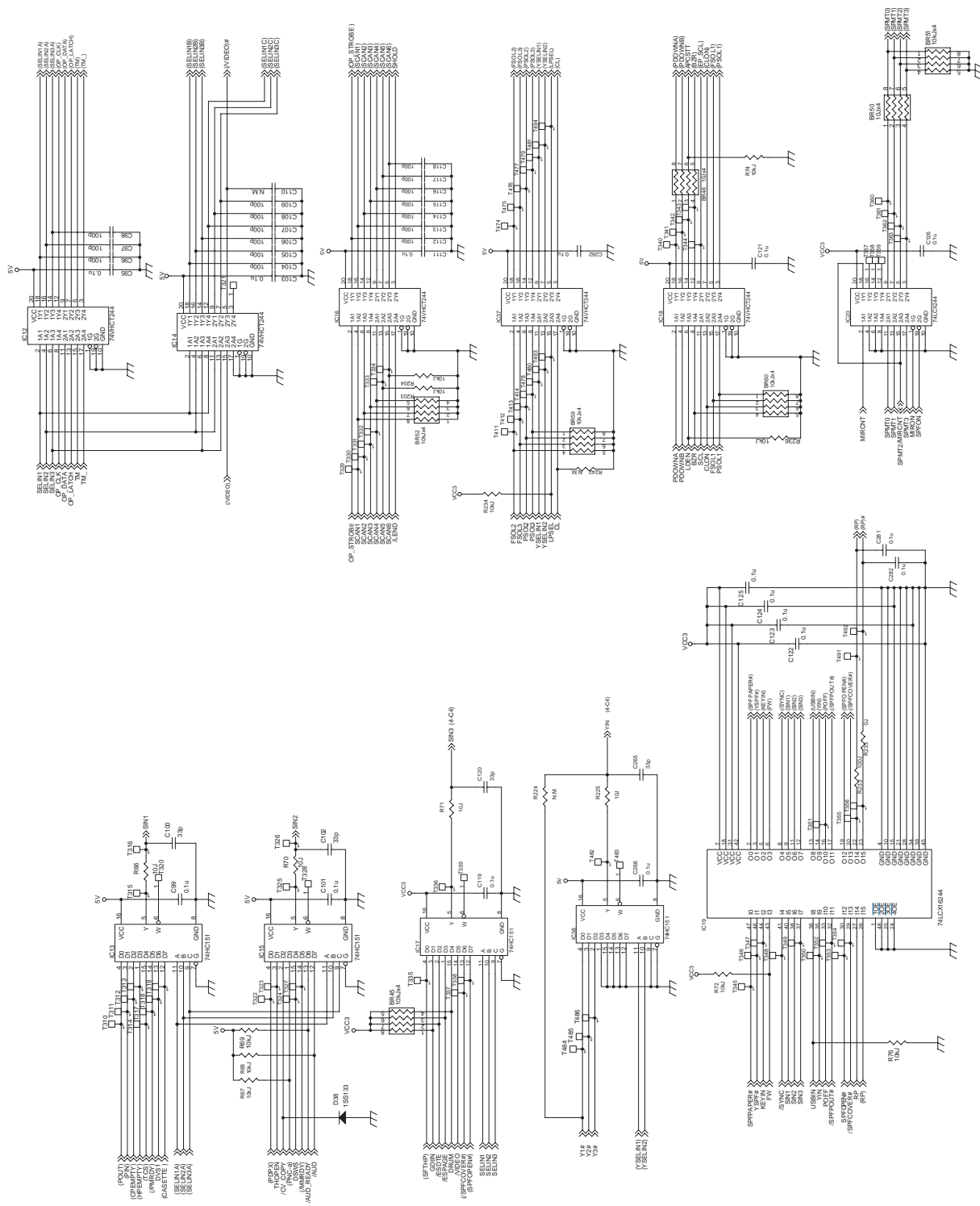


# Memory



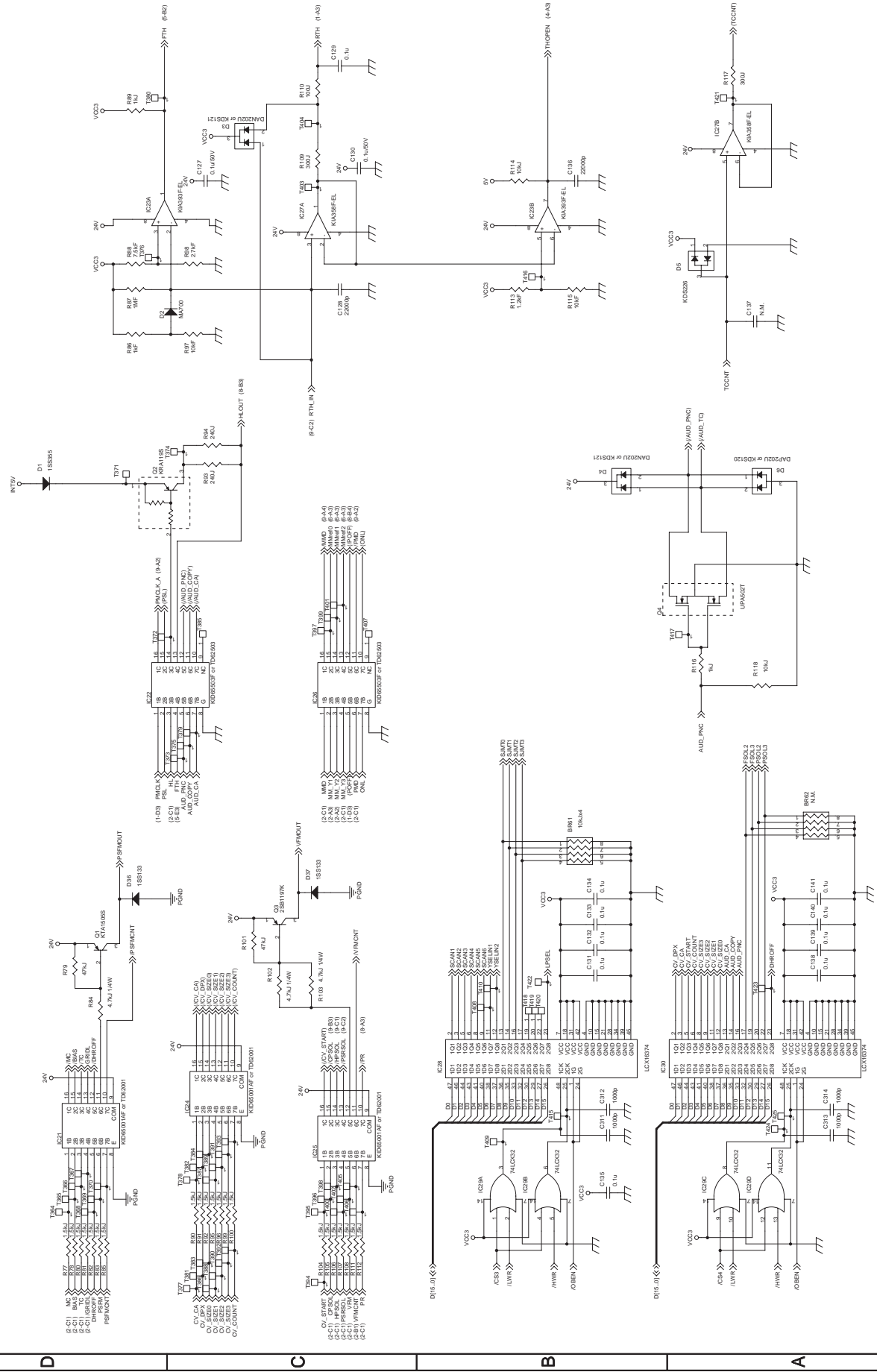
SDRAM Δ2

Model	Vendor/Type	R62 ("7)
128Mb (2Mx16b1x4bank)	K4S281632D-1H(Samsung)	OPEN
256Mb (4Mx16b1x4bank)	K4S561632D-TC7H(Samsung)	Q



# Driver (2)

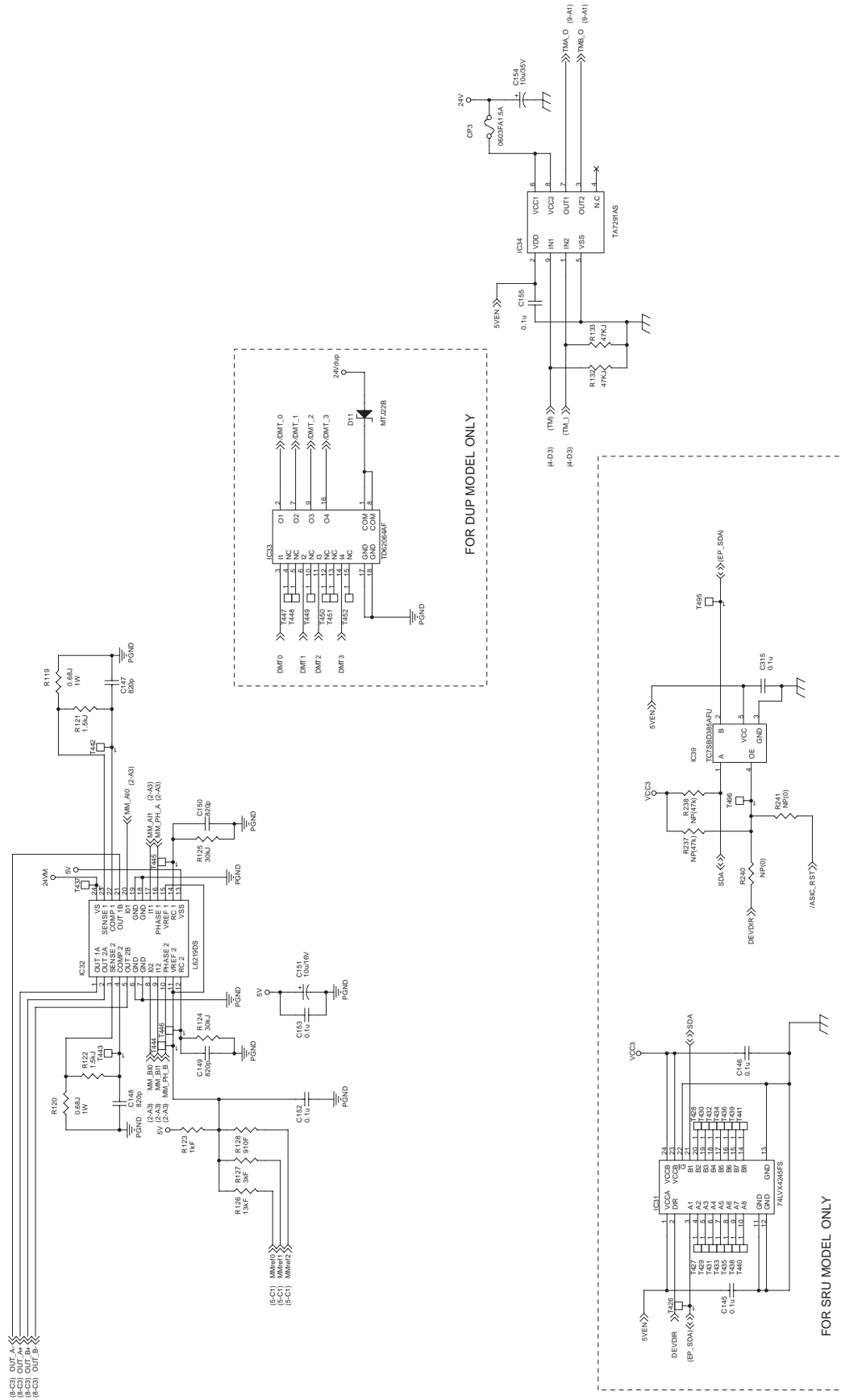
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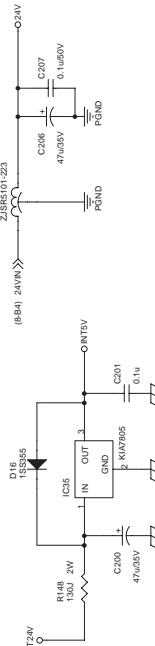
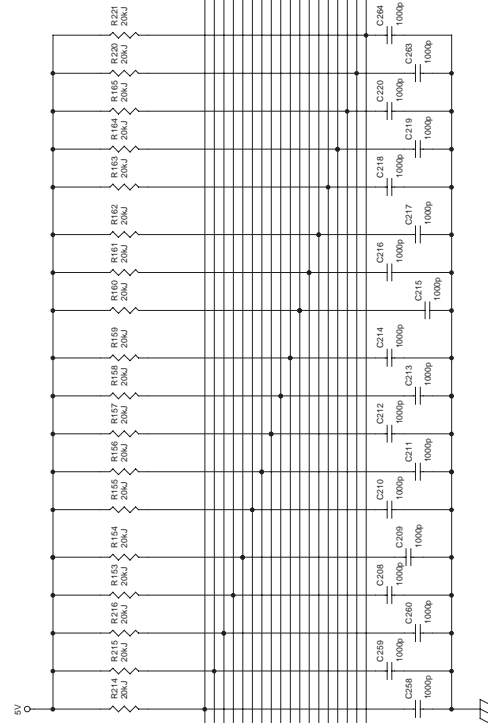
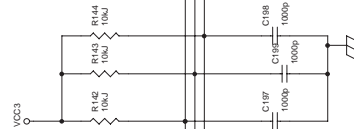
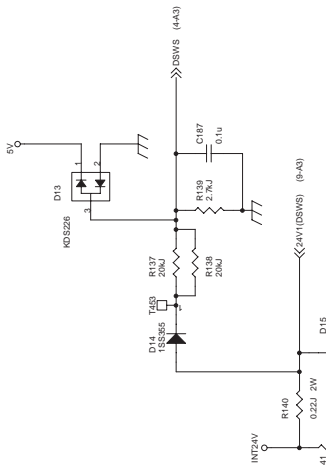
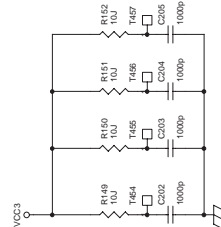
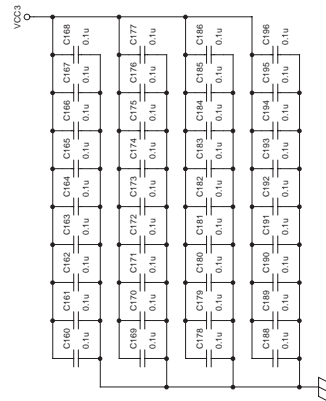
# Driver (3)

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# Noise filter/Pull-up

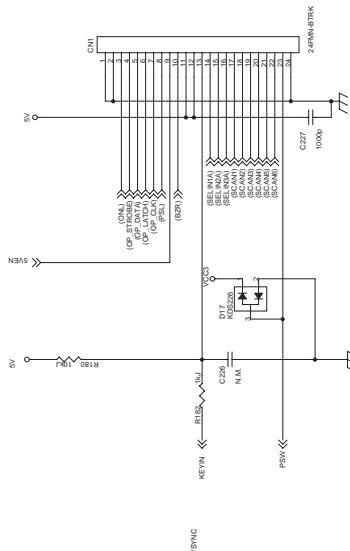
7/9



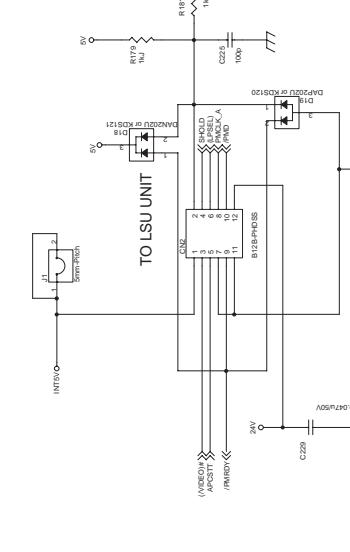
# Connector (1)

8/9

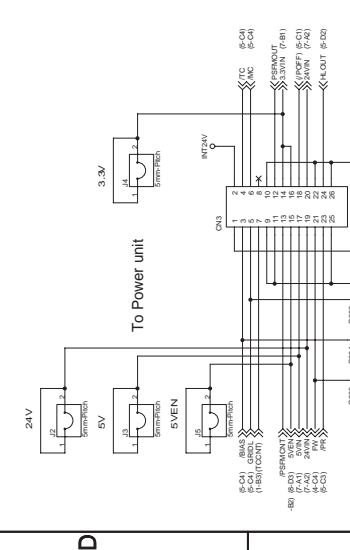
To Operational PWB



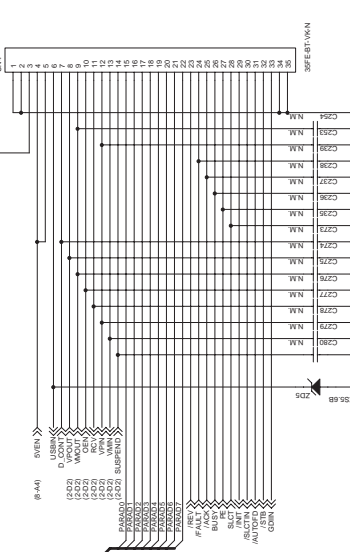
To LSU UNIT



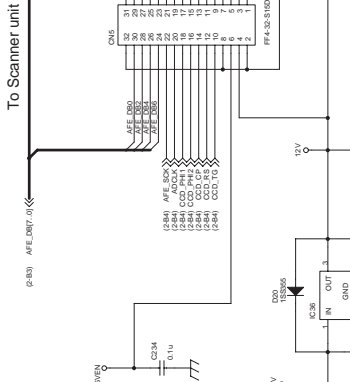
To Power unit



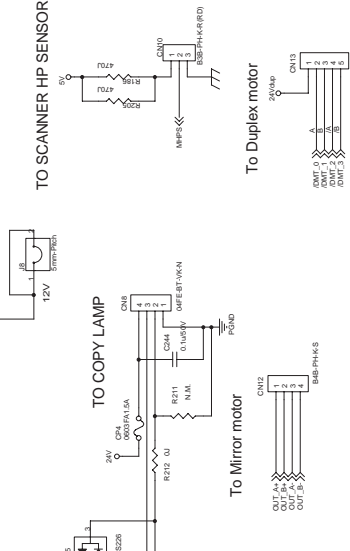
To Interface PWB



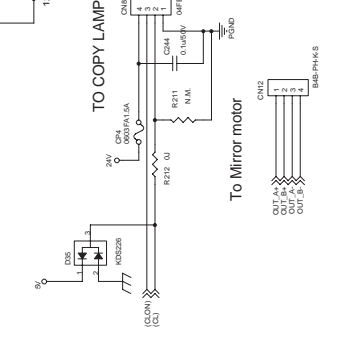
To Scanner unit



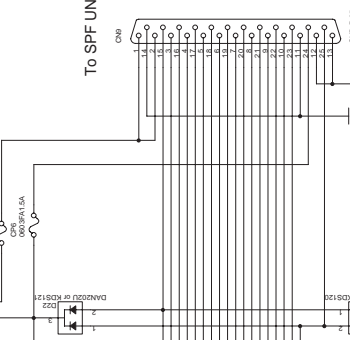
To Scanner HP SENSOR



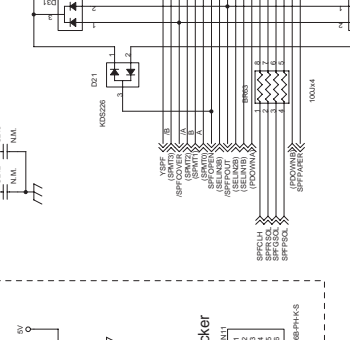
To COPY LAMP



To Mirror motor



To SPF UN



Not mounted

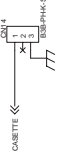
For debug

For JTAG

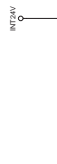
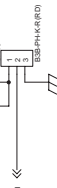
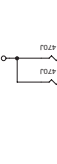
For checker

## Connector (2)

TO CASSETTE SWITCH  
SENSOR



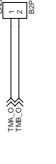
TO PAPER IN SENSOR



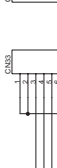
To MAIN motor



TO TONER MOTOR



To IMC2



TO OPTION CASSETTE



TO DEV UNIT



TO DPX/PaperOUT SENSOR



TO PS ROLLER SOLENOID



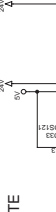
TO CASSETTE PICK UP SOLENOID



TO HAND PAPER PICK UP SOLENOID



TO INTERNAL COOLING FAN



TO HAND PAPER EMPTY SENSOR



TO CASSETTE PAPER EMPTY SENSOR



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TO CASSETTE PAPER EMPTY SENSOR



TO HAND PAPER EMPTY SENSOR



TO INTERNAL COOLING FAN  
TO TRAY PWB



TO THERMIST



TO SIDE COVER/FRONT COVER SWITCH



TO DRUM INITIAL SW<CRU ONLY>



TO DEHUMIDIFY HEATER



TO SHIFTER MODEL ONLY>



Connector (2)

TO CASSETTE SWITCH  
SENSOR



TO PAPER IN SENSOR



To MAIN motor



TO TONER MOTOR



To IMC2



TO OPTION CASSETTE



TO DEV UNIT



TO CASSETTE PICK UP SOLENOID



9/9

TO CASSETTE PAPER EMPTY SENSOR



TO HAND PAPER EMPTY SENSOR



TO INTERNAL COOLING FAN  
TO TRAY PWB



TO THERMIST



TO SIDE COVER/FRONT COVER SWITCH



TO DRUM INITIAL SW<CRU ONLY>



TO DEHUMIDIFY HEATER



TO SHIFTER MODEL ONLY>



Connector (2)

TO CASSETTE SWITCH  
SENSOR



TO PAPER IN SENSOR



To MAIN motor



TO TONER MOTOR



To IMC2



TO OPTION CASSETTE



TO DEV UNIT



TO CASSETTE PICK UP SOLENOID



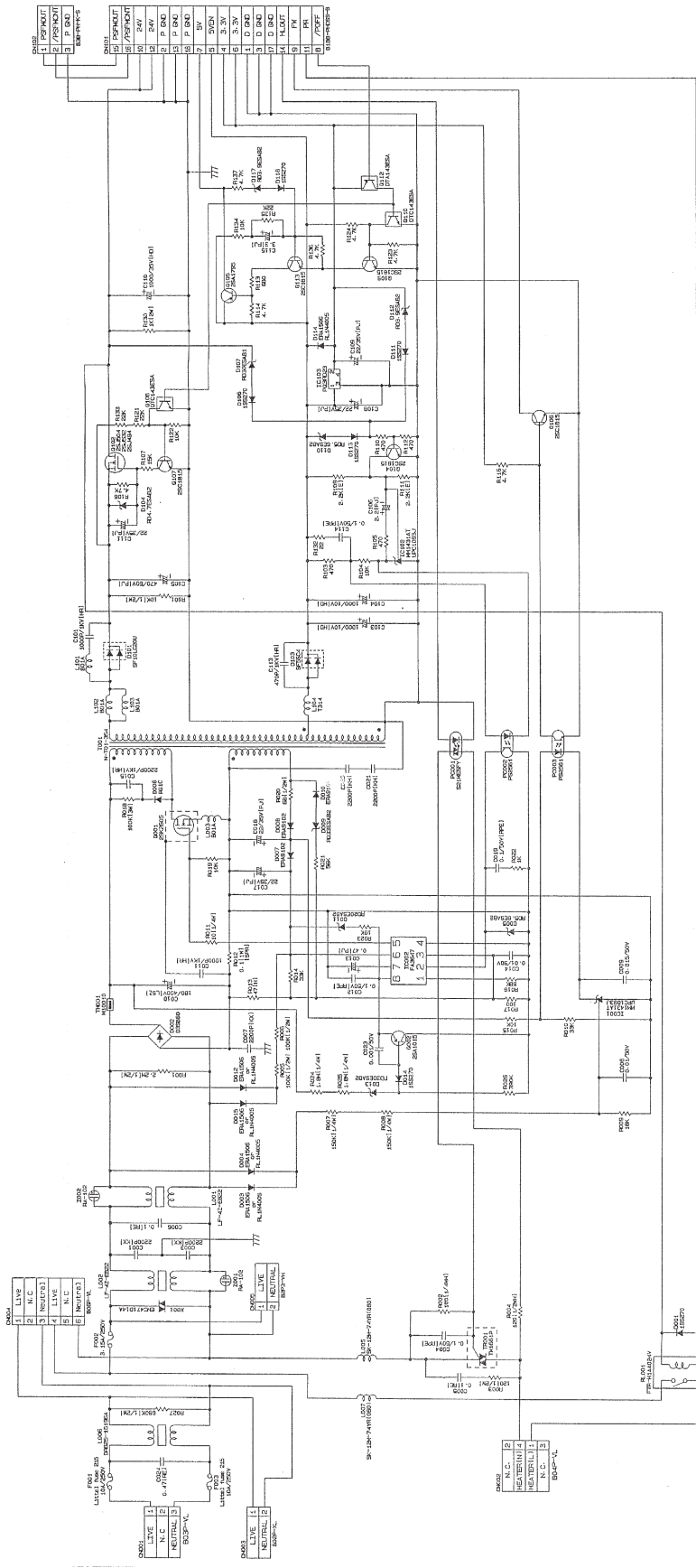
**100VAC (85 - 127V)**



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220-240VAC (187 - 276V)

3/3

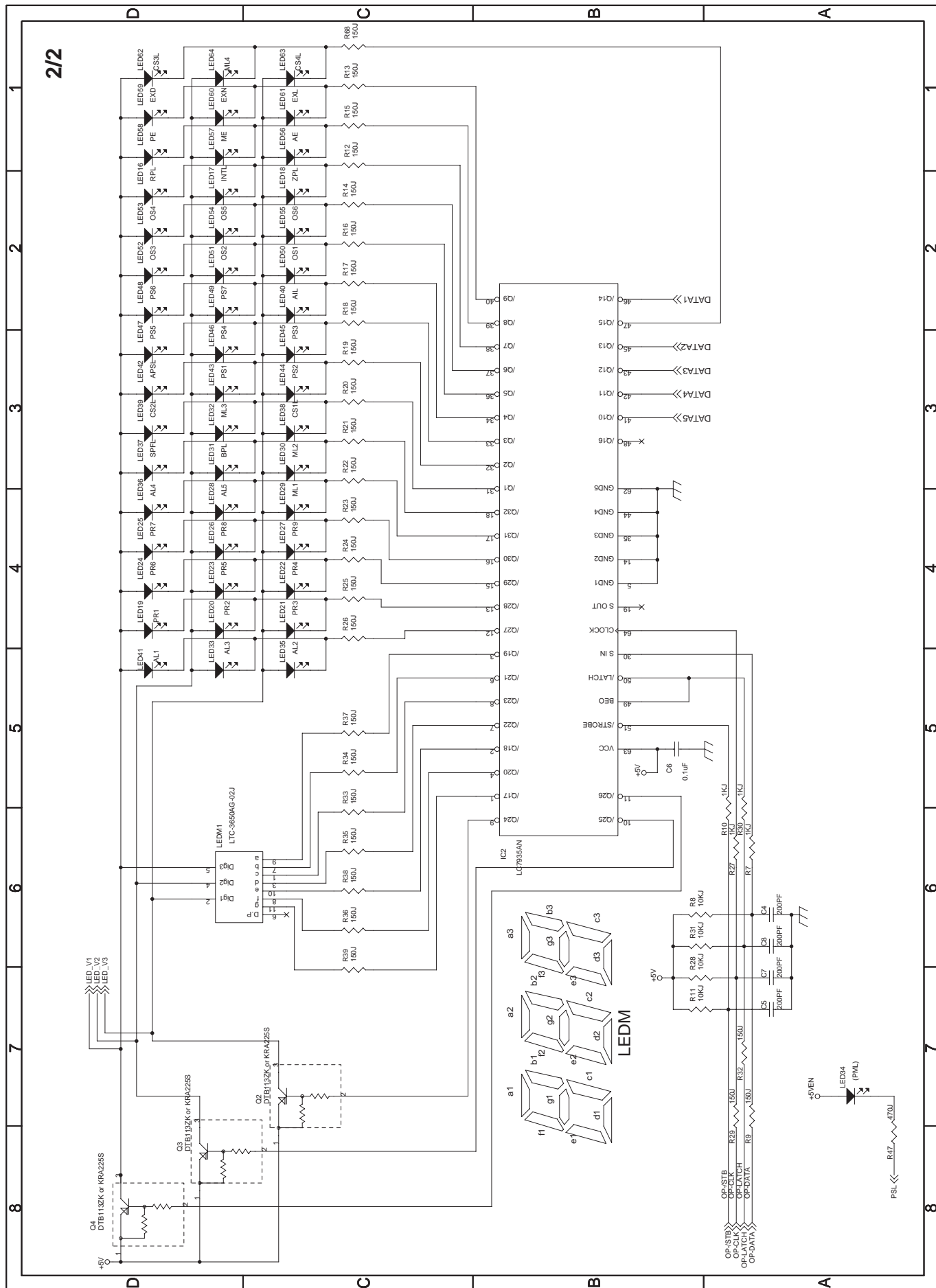




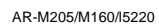


## 1/2



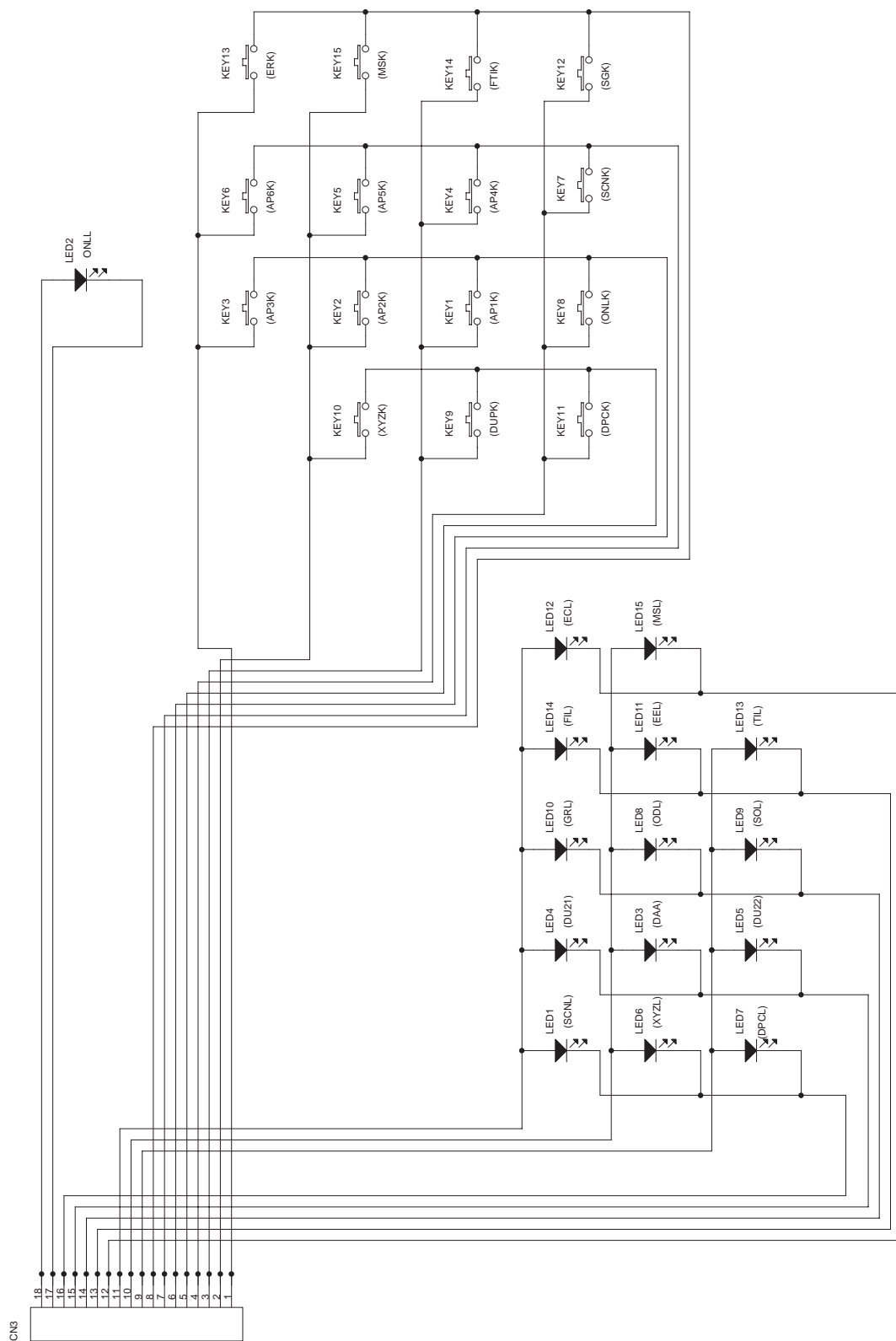


## 1/1



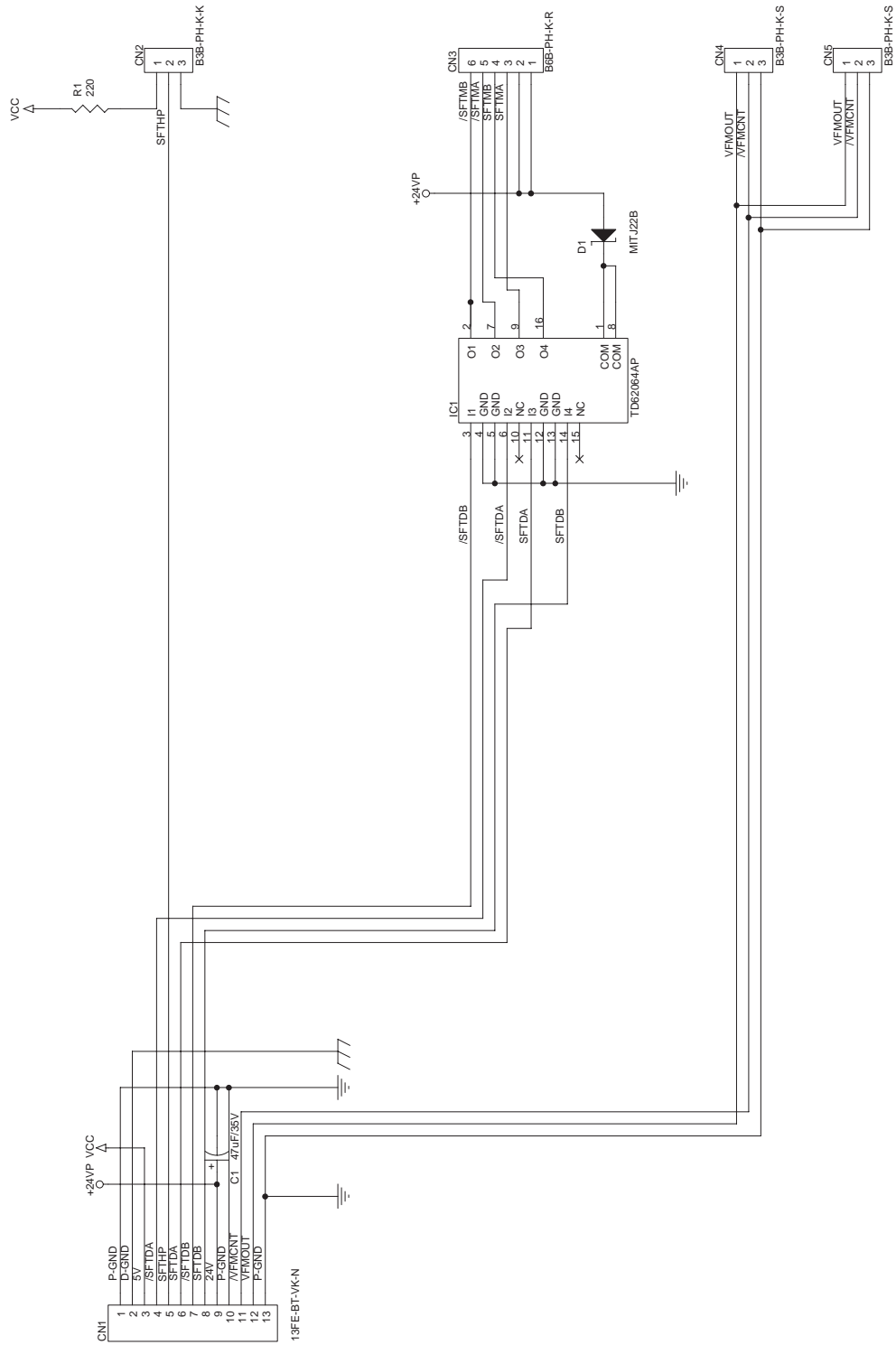
## 6. SCAN OPE PWB

1/1



# 7. TRAY PWB

1/1



# SHARP

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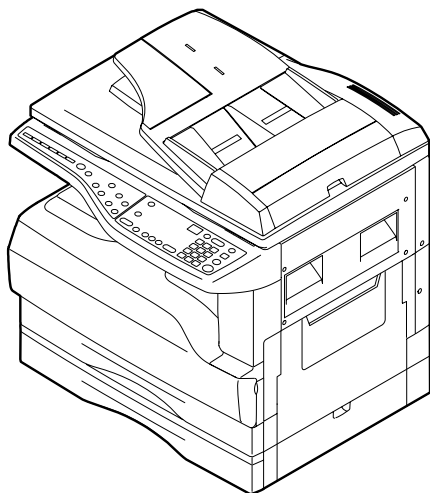
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2003 June Printed in Japan ⓘ

CODE:00ZARM205/P1/



## デジタル複合機 DIGITAL COPIER

**AR-M205**  
**AR-200M**  
**AR-160M**  
**AR-M160**  
**MODEL AR-5220**

このパーツガイドに掲載されている表示価格ランクは消費税抜きです。

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| 12 台板ユニット2 (Base plate unit 2)                     |  |
| 13 手差しマルチユニット<br>(Manual paper feeding multi unit) |  |
| 14 排紙フレームユニット (Delivery frame unit)                |  |
| 15 TCケースユニット (TC case unit)                        |  |
| 16 250枚トレイユニット (250 sheets tray unit)              |  |

## 補修部品のランク付

市場における補修部品の在庫管理が、適正に運営出来る手助けとなることを、目的とします。

- Aランク：メンテナンスパーツ、メンテナンスパーツには入っていないがメンテナンスパーツに近い消耗パーツ。  
 Bランク：性能・機能パーツ（センサー、クラッチ等の電気パーツ）、消耗パーツ。  
 Eランク：基板含むユニットパーツ。  
 Dランク：整備パーツ（外装、パッキング、同梱パーツ）。  
 Cランク：上記ランク以外のパーツ（基板の子部品を除いたもの）。

## DEFINITION

- Rank A : Maintenance parts, and consumable parts which are not included in but closely related to maintenance parts  
 Rank B : Performance/function parts (sensors, clutches, and other electrical parts), consumable parts  
 Rank E : Unit parts including PWB  
 Rank D : Preparation parts (External fitting, packing, parts packed together)  
 Rank C : Parts other than the above (excluding sub components of PWB)

安全性・信頼性確保のため部品は、必ず正規のものをご使用下さい。

△印の商品は、安全上重要な部品です。交換をする時は、安全及び性能維持のため必ず指定の部品をご使用下さい。

Because parts marked with "△" is indispensable for the machine safety maintenance and operation, it must be replaced with the parts specific to the product specification.

- 当モデルのサービス資料には、この資料以外にサービスマニュアル（回路図含む）があります。合わせてご利用下さい。
- Other than this Parts Guide, please refer to documents Service Manual(including Circuit Diagram) of this model.
- Please use the 13 digit code described in the right hand corner of front cover of the document, when you place an order.
- For U.S. only-Use order codes provided in advertising literature. Do not order from parts department.

## 1 外装 (Exteriors)

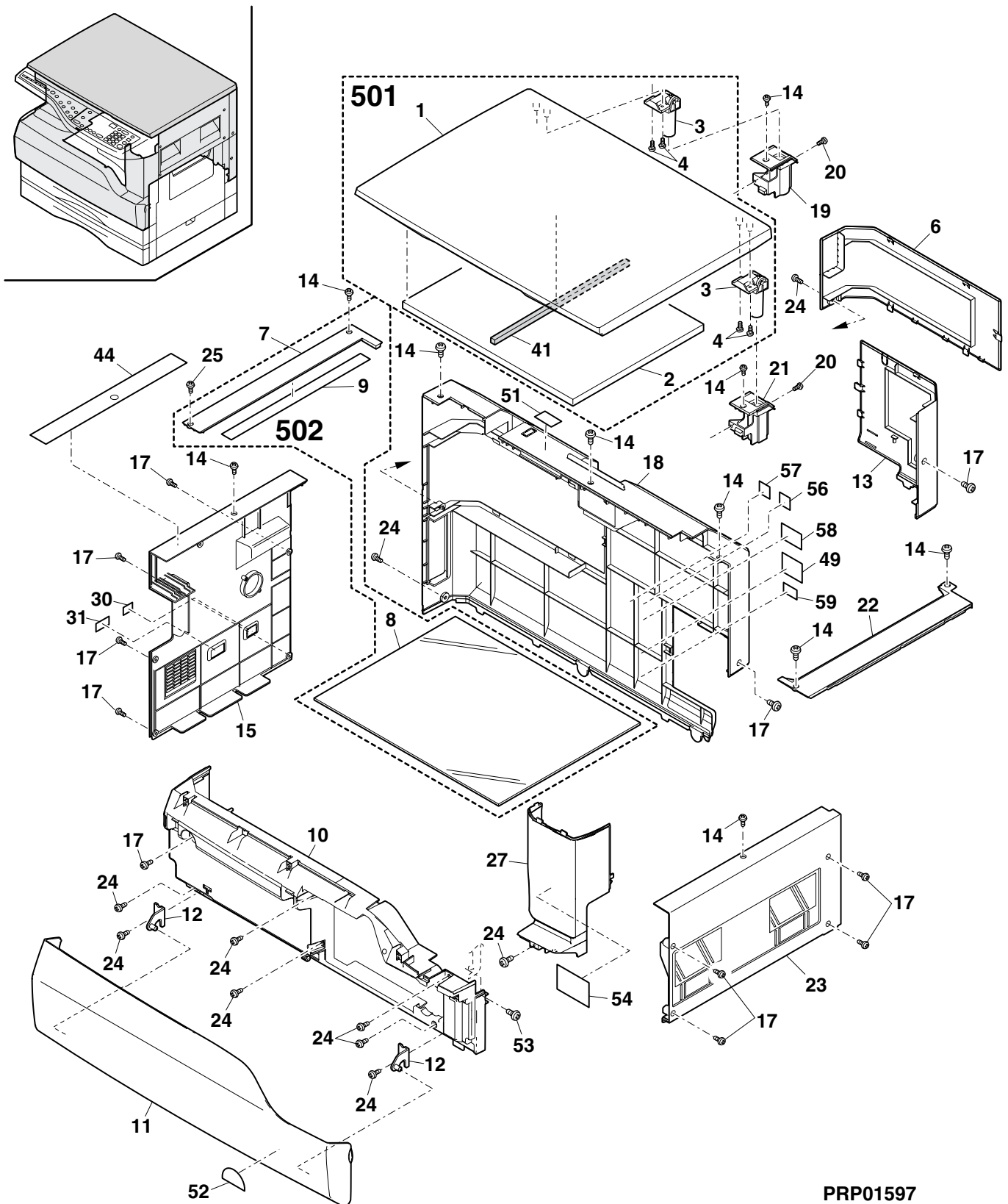
NO.	PARTS CODE	PRICE RANK		NEW MARK	PART RANK	DESCRIPTION
		Ex.	Ja.			
1	GC0VH0010QSE5	BD	GJ	N	D	OC cover [AR-200M/AR-160M/AR-M160/AR-5220] OCカバー
2	PCUSS0023QSZZ	AV	FG		C	OC sheet [AR-200M/AR-160M/AR-M160/AR-5220] OCマット
3	CHNG-0007QS02	AM	EG	N	C	OC hinge [AR-200M/AR-160M/AR-M160/AR-5220] OCヒンジ
4	XEBSE40P10000	AA	DD		C	Screw(4×10) [AR-200M/AR-160M/AR-M160/AR-5220] ビス
6	GC0V-0047QSZZ	AM	EG	N	D	Rear exterior ERDH cover 後キャビネット ERDH カバー
7	CFIX-0024QS02	AL	EB	N	D	Glass fixing plate (Japan only) ガラス押え板
	CFIX-0024QS01	AL	EB	N	D	Glass fixing plate (Other Countries) ガラス押え板
8	PGLSP0003QSZZ	BA	FX		B	Table glass テーブルガラス
9	PSHEZ0220QSZ1	AK	DX		C	Sheet シーディングシート
10	GCAB-0068QSZZ	AV	FG	N	D	Front exterior 前キャビネット
11	CCOV-0046QS06	AX	FG	N	D	Front exterior cover [AR-200M] 前キャビネット蓋
	CCOV-0046QS01	AV	FG	N	D	Front exterior cover [AR-160M] 前キャビネット蓋
	CCOV-0046QS07	AX	FG	N	D	Front exterior cover [AR-M160] 前キャビネット蓋
	CCOV-0046QS02	AX	FG	N	D	Front exterior cover [AR-M205] 前キャビネット蓋
	CCOV-0046QS05	AW	FG	N	D	Front exterior cover [AR-5220] 前キャビネット蓋
12	CARMP0010QS01	AD	DJ		C	Hinge arm ヒンジアーム
13	GC0V-0048QSZZ	AM	EG	N	D	Rear exterior cover 後キャビネットカバー
14	LX-BZ0750FCZZ	AB	DD		C	Screw(3×6) ビス
15	GCAB-0071QSZZ	AV	FG	N	D	Left exterior (Japan only) 左キャビネット
	GCAB-0071QSZ1	AV	FG	N	D	Left exterior (Other Countries) 左キャビネット
17	XHBSE30P08000	AA	DD		C	Screw(3×8) ビス
18	GCAB-0070QSZZ	BA	FX	N	D	Rear exterior 後キャビネット
19	PGIDM0110QSZZ	AG	DX	N	C	Hinge guide L ヒンジガイド L
20	XHBSD30P06000	AA	DD		C	Screw(3×6) ビス
21	PGIDM0111QSZZ	AG	DX	N	C	Hinge guide R ヒンジガイド R
22	GC0VH0011QSE1	AM	EG	N	D	OC glass fixing cover OC ガラス押えカバー
23	GCAB-0015QSE1	AU	EZ	N	D	Right exterior 右キャビネット
24	XEBSE40P10000	AA	DD		C	Screw(4×10) ビス
25	LX-BZ0759FCZZ	AB	DD		C	Screw(3×6) ビス
27	GCAB-0079QSZZ	AP	EQ	N	D	Front right exterior (U.S.A only) 前右キャビネット
	CCAB-0079QS01	AQ	EQ	N	D	Front right exterior (Except U.S.A) 前右キャビネット
30	TLABH0103QSZ1	AB	DJ	N	D	Warm heater label (Japan only) 保温ヒーターラベル
31	TLABH0104QSZ1	AB	DJ	N	D	Power supply label (Japan only) 電源ラベル
41	PMLT-0039QSZZ	AC	DJ		C	OC cushion [AR-200M/AR-160M/AR-M160/AR-5220] OCモット
44	TLABH0457QSZZ	AG	DX	N	D	Operation label (Japan only) 操作説明ラベル
	TLABH0458QSZZ	AF	DS	N	D	Operation label (Other Countries) 操作説明ラベル
49	TLABG0408QSZZ	AD	DJ		D	Class 1 label (Japan only) クラス1ラベル
	TLABZ0058QSZZ	AD	DJ		D	Class 1 label (Except Japan, U.S.A,Canada,Taiwan,Brazil,Saudi Arabia,LAG2) クラス1ラベル
51	TLABH0482QSZZ	AE	DS	N	D	Scanning direction label スキャン方向ラベル
52	TLABG0401QSZZ	AR	EQ		D	Energy star label (Hong kong only) エナジースターラベル
	TLABZ4312FCZZ	AE	DS		D	Energy star label (Canada only) エナジースターラベル
	TLABZ4047FCZZ	AC	DJ		D	Energy star label (Japan,U.S.A,U.Kingdom, Europe,Australia,New Zealand) エナジースターラベル
53	LX-BZ3008SC0S	AA	DD		C	Screw(3×8) ビス
54	TLABM0520QSZZ	AE	DJ	N	D	Imagery label (U.S.A only) イメージャラベル
56	TLABS4070FCZZ	AC	DJ		D	Gost-R label (Poland only) Gost-R ラベル
57	TLABS4770FCZZ	AD	DJ		D	Standard label (Poland only) 規格ラベル



# 1 外装 (Exteriors)

NO.	PARTS CODE	PRICE RANK		NEW MARK	PART RANK	DESCRIPTION
		Ex.	Ja.			
58	TLABH4771FCZZ	AF	DS		D	Class 1 label (Poland only) クラス1ラベル
	TLABZ0105RSZZ	AD	DJ		D	LAG place origin label (LAG4) LAG 原産地ラベル
	TCAUH1047FCZZ	AD	DJ		D	Service caution label (Poland only) サービス注意ラベル
501	CCOVH0010RS56	BK	HG	N	E	OC cover unit [AR-200M,AR-160M,AR-M160,AR-5220] OCカバーユニット
502	CFIX-0024RS52	BD	GJ	N	E	Table unit (Japan only) テーブルユニット
	CFIX-0024RS51	BD	GJ	N	E	Table unit (Other countries) テーブルユニット

# 1 外装 (Exteriors)

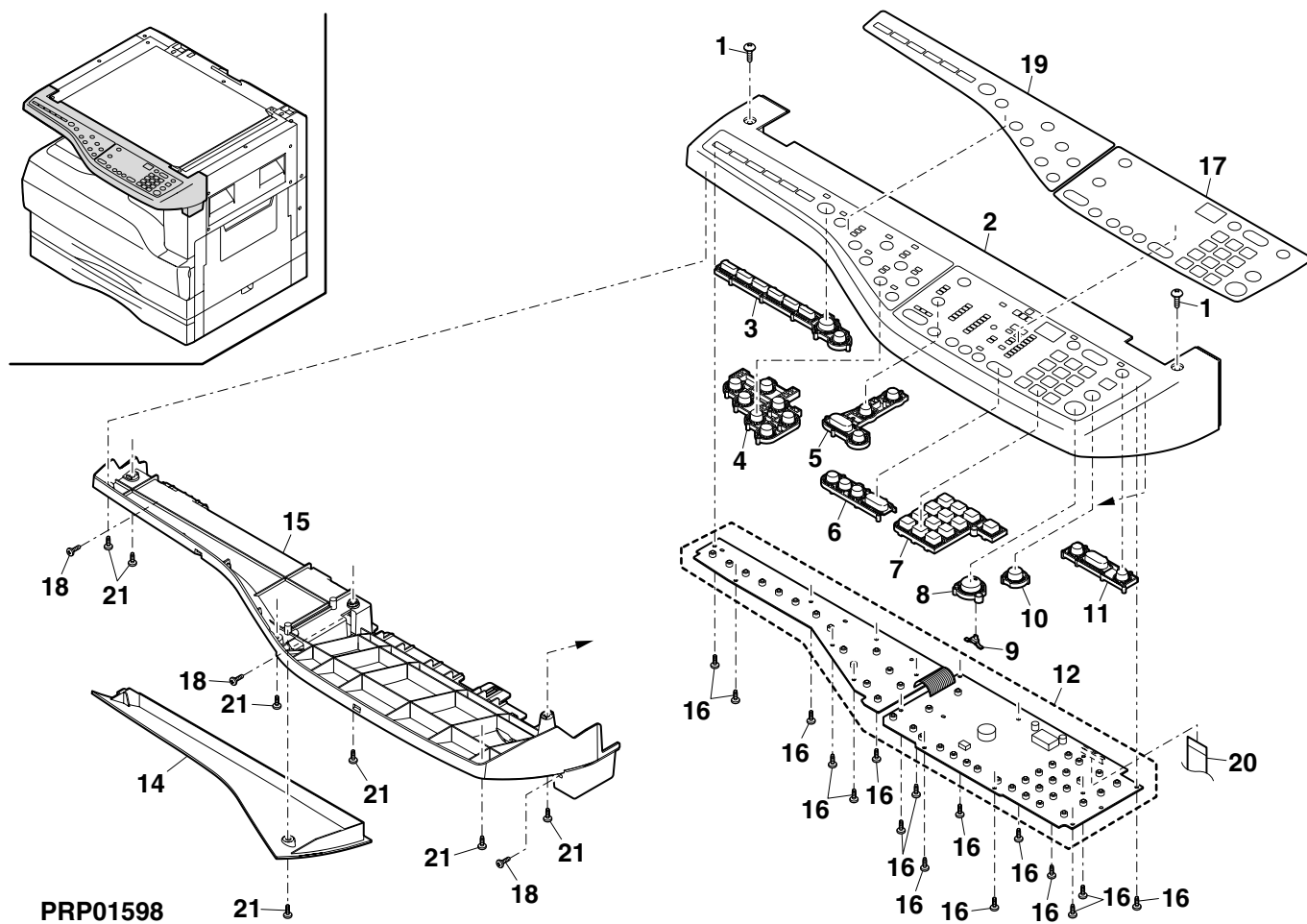


PRP01597

## 2 操作部 (Operation panel section)

[illegible]

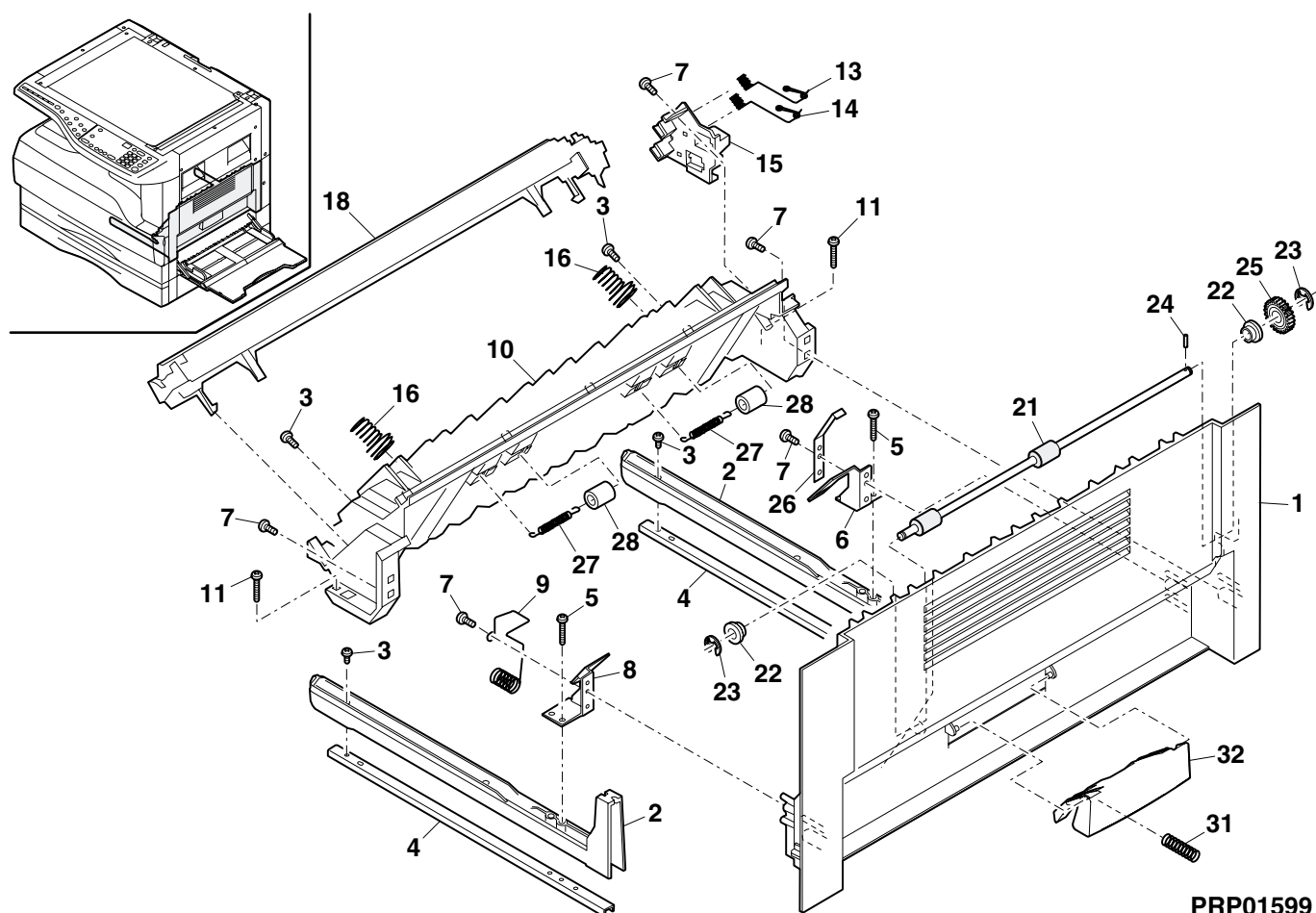
## 2 操作部 (Operation panel section)



③ サイト`ト`ア-ユニット (Side door unit)

[illegible]

### 3 サイドドアユニット (Side door unit)

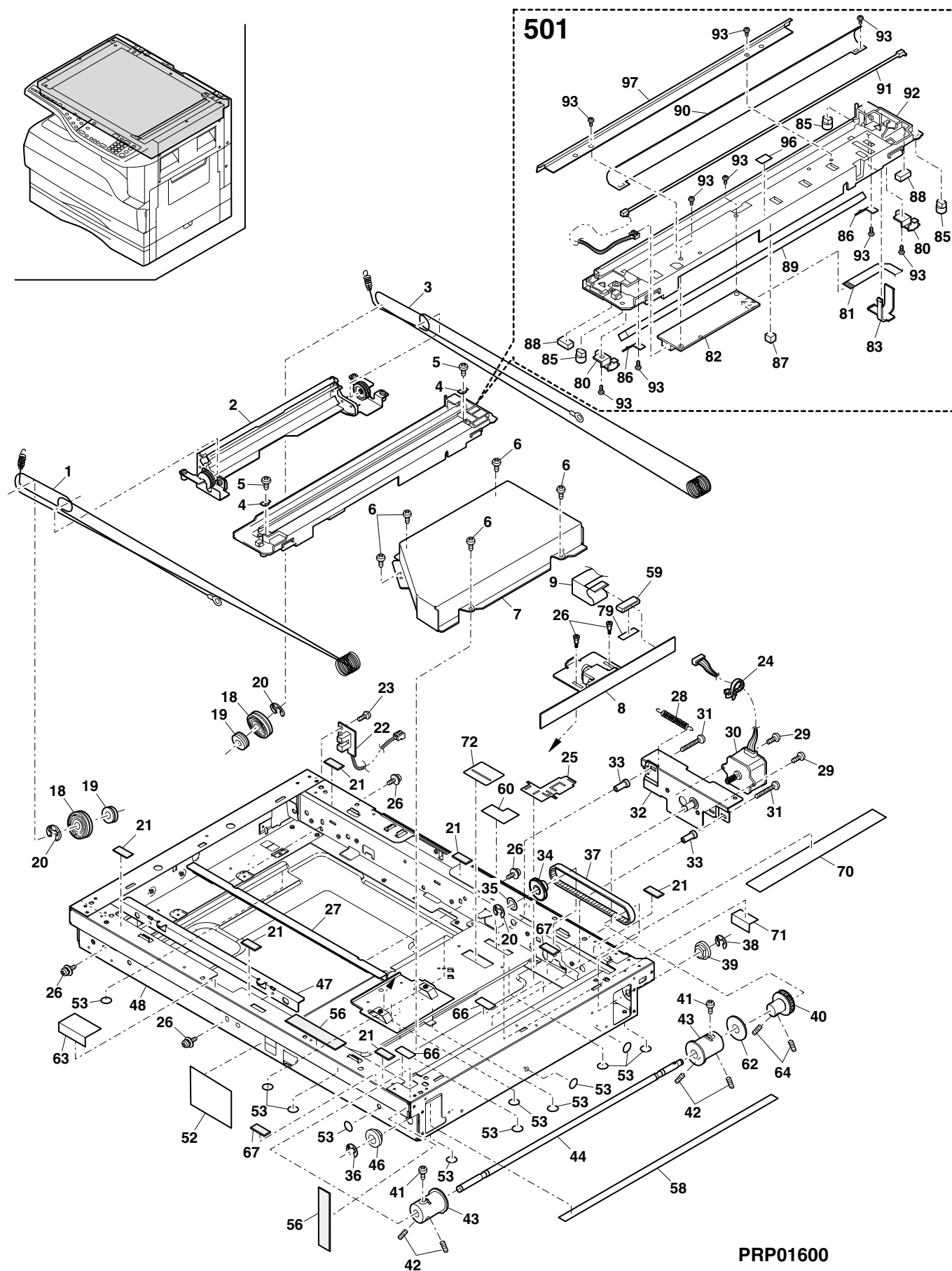


PRP01599

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#### 4 光学ユニット (Optical unit)



PRP01600

# 5 第 2.3 ミラ-ユニット (2nd,3rd mirror unit)

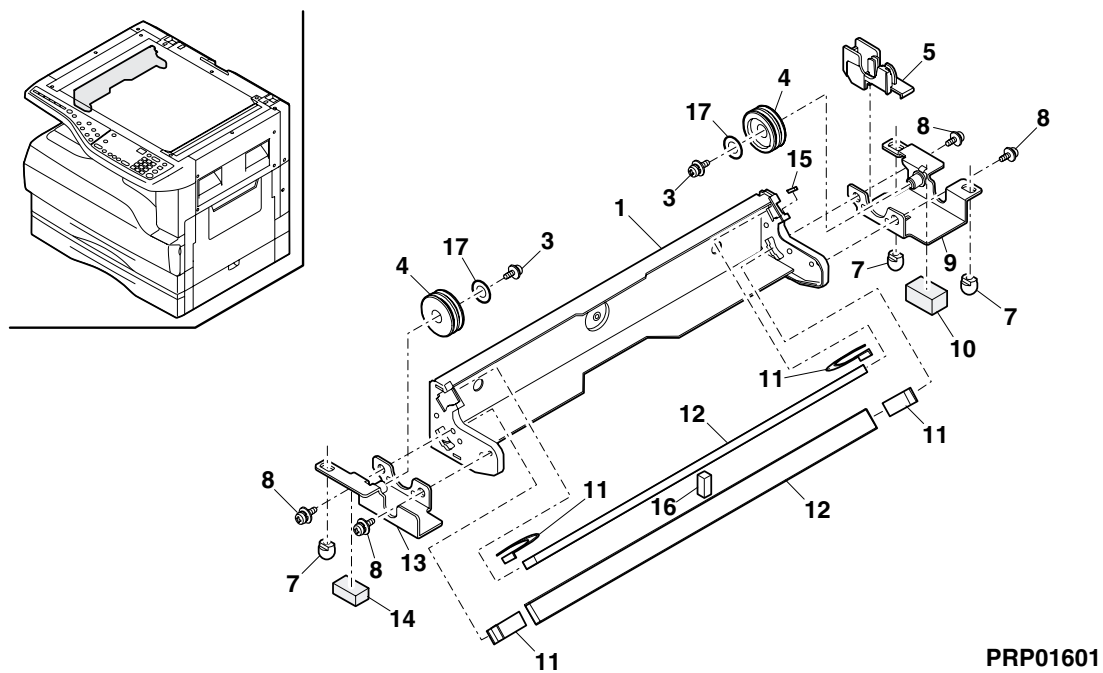
NO.	PARTS CODE	PRICE RANK		NEW MARK	PART RANK	DESCRIPTION
		Ex.	Ja.			
1	LHLDZ0044QSZZ	AN	EG	N	C	2nd,3rd mirror holder 第 2.3 ミラ-ホルダ-
3	XBPSD40P06KS0	AA	DD		C	Screw(4×6KS) ビス
4	NPLYZ0017QSZZ	AE	DS		C	W pulley W プーリー
5	LHLDZ0013QSZZ	AD	DJ		C	CL guide holder CL ガイ ドホルダ-
7	MSLi-0138FCZZ	AC	DJ		E	Slider スライダ-
8	LX-BZ0335FCZZ	AA	DD		C	Screw(4×6)(Red) ビス
9	CPLTM0156QS02	AH	DX		C	Pulley fixing plate R プーリー取付板 R
10	PCUSS0009QSZZ	AA	DJ		C	MB-B cushion MB-B クッション R
11	LFI X-0284FCZZ	AC	DD		C	2nd,3rd mirror fixing plate F 第 2.3 ミラ-押え板 F
13	CPLTM0155QS02	AH	DX		C	Pulley fixing plate F プーリー取付板 F
14	PCUSS0201FCZZ	AA	DD		C	MB-B cushion MB-B クッション
15	PSPA Z0011QSZZ	AD	DJ		C	Mirror spacer ミラ-スペーサ-
16	PMLT-0084QSZZ	AB	DJ	N	C	2nd,3rd mirror cushion 第 2.3 ミラ-モルト
17	LX-WZ0001GCZZ	AB	DD		C	Washer ワッシャ
	(Unit)					
901	CMi R-0008QS35	BB	GD	N	E	2nd,3rd mirror unit 第 2.3 ミラ-ユニット

# 6 中間フレームユニット (Middle frame unit)

NO.	PARTS CODE	PRICE RANK		NEW MARK	PART RANK	DESCRIPTION
		Ex.	Ja.			
1	XEPSD23P12000	AA	DD		C	Screw(2.3×12) ビス
2	CSW-M0007RS55	AS	EZ	N	E	Inter lock switch unit インターロックスイッチユニット
3	NCPL-0007QSZ1	AC	DJ	N	C	Hopper coupling ホッパ-カップ リンク
4	MSPRC0024QSZZ	AA	DJ		C	Hopper spring ホッパ-バネ
5	RMOTD0035QSZZ	AN	EG	N	B	Toner motor トナーモーター
6	XEBSD30P10000	AA	DD		C	Screw(3×10) ビス
7	DUNTK0343RSZZ	BV	RB	N	E	LSU unit LSU ユニット
8	DHAI-0322QSZZ	AS	EQ	N	C	DEV harness DEV ハーネス
9	XBPSD30P06ES0	AA	DD		C	Screw(3×6ES) ビス
10	CHAI-0109RS52	AN	EG	N	E	GB-MCFB harness unit GB-MCFB ハーネスユニット
11	CHAI-0107RS52	AM	EG	N	E	MC harness unit MC ハーネスユニット
12	MSPRD0104QSZZ	AC	DJ		C	HV terminal spring (case) 高圧端子バネ (ケース)
13	MSPRD0103QSZZ	AC	DJ		C	HV terminal spring (grid) 高圧端子バネ (グリッド)
14	MSPRD0102QSZZ	AC	DJ		C	HV terminal spring 高圧端子バネ (ノコバ)
15	LHLDZ0038QSZZ	AH	DX		C	High voltage terminal holder 高圧端子ホルダ-
16	XEBSD30P08000	AA	DD		C	Screw(3×8) ビス
18	XEBSD30P10000	AA	DD		C	Screw(3×10) ビス
21	LHLDZ0039QSZZ	AE	DJ	N	C	High voltage terminal holder TC 高圧端子ホルダ- TC
22	LPLTM0067QSZZ	AC	DJ	N	C	TC terminal plate TC 端子板
23	XEBSD30P06000	AA	DD		C	Screw(3×6) ビス
24	DHAI-0106QSZZ	AK	DX	N	C	BC harness BC ハーネス
25	DHAI-0108QSZZ	AH	DX	N	C	TC harness TC ハーネス
26	MSPRC0278QSZZ	AC	DJ		C	PS pressure spring PS 加圧バネ
27	XRESP40-06000	AA	DD		C	E type ring E リング
28	NSFTZ0021QSZZ	AL	EB		C	PS roller shaft PS 従動ローシャフト
29	NKOM-0001QSZZ	AD	DJ		C	PS collar(φ12) PS コ
30	MSPRD0139QSZZ	AB	DJ		C	PS earth spring PS アースバネ
31	XEBSD30P06000	AA	DD		C	Screw(3×6) ビス
33	LBOSZ1508FCZZ	AG	DX		C	Cam boss A2 カムボス A2
34	PIPP0174FCZZ	AC	DJ		C	Pipe C パイプ C
35	MSPRC0106QSZZ	AF	DS		C	PS clutch spring PS クラッチバネ
36	XPSSJ20-07000	AA	DD		C	Spring pin(φ2-7) スプリングピン
37	NGERH0062QSZZ	AK	DX		C	Clutch gear(32T) クラッチギア
38	NBRGC0018QSZZ	AD	DJ		C	Bearing E 軸受 E
39	XRESP60-08000	AA	DD		C	E type ring E リング
40	NROL P0032QSZZ	AT	EZ		C	PS trnsport roller PS 搬送ローラー
41	JKNBZ0010QSZZ	AD	DJ	N	C	PS knob PS ノブ
42	XBPSD30P10KS0	AB	DD		C	Screw(3×10KS) ビス
46	LFRM-0024QSZZ	BC	GJ		C	Middle frame 中間フレーム
47	LPiNS0301FCZZ	AD	DJ		C	DV guide pin (AB series) DV ガイ ドピン
	LPiNS0300FCZZ	AD	DJ		C	DV guide pin (Inch series) DV ガイ ドピン
49	PSHEZ0056QSZZ	AC	DJ		C	PS rear guide sheet PS 後ガイ ドシート
51	LANGT0003QSZZ	AC	DJ		C	SRU fixing angle SRU 取付けアングル
52	XHBS230P06000	AA	DD		C	Screw(3×6) ビス
53	TCAUH0018QSZZ	AE	DJ	N	D	Laser caution label (Japan only) レーザ-注意ラベル
	TCAUH0007QSZZ	AD	DJ		D	Laser caution label (Other Countries) レーザ-注意ラベル
54	LBNDJ0013FCZ1	AE	DJ		C	Cable band ケーブルバンド
55	LPLTM0149QSZZ	AD	DJ		C	Connector fixing plate (Except Japan) コネクター取付け板
56	LX-BZ0020QSZZ	AB	DD		C	Screw (Except Japan) ドア-コネクター段ビス
57	DHAI-0333QSZZ	AL	EB	N	C	SRU harness (Except Japan) SRU ハーネス
60	LSTPP0014QSZZ	AC	DJ		C	Right door stopper 右ドアストッパ-
61	MSPRD0298QSZZ	AD	DJ	N	C	Stopper spring ストップバネ
62	LHLDZ0099QSZZ	AC	DJ	N	C	Stopper holder ストップホルダ-
63	DHAI-0321QSZZ	AH	DX	N	C	LSU harness LSU ハーネス
64	XEPSD30P14X00	AA	DD		C	Screw(3×14) ビス
65	XHBSD30P06000	AA	DD		C	Screw(3×6) ビス
66	LX-WZ0198FCZZ	AA	DD		C	Poly slider(T=0.13) ポリスライダ-
67	LX-WZ1003HCZZ	AA	DD		C	Poly slider(T=0.5) ポリスライダ-

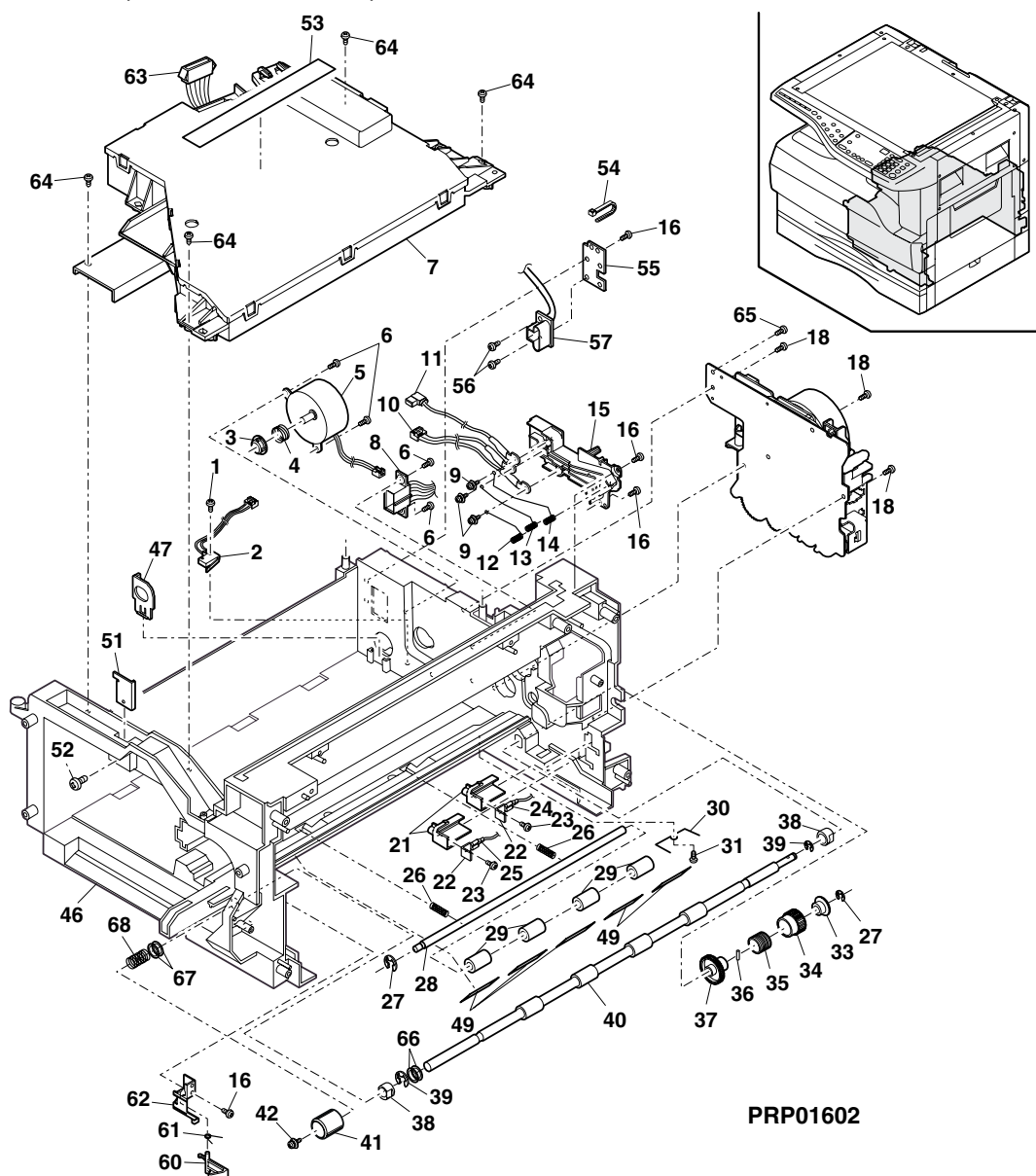


5 第 2.3 ミラーユニット (2nd,3rd mirror unit)



PRP01601

6 中間フレームユニット (Middle frame unit)



PRP01602

# 7 フォトリソユニット (Process unit)

NO.	PARTS CODE	PRICE RANK		NEW MARK	PART RANK	DESCRIPTION
		Ex.	Ja.			
1	XEBSD30P10000	AA	DD		C	Screw(3×10) ビス
2	CHLDZ0035RS51	BH	GX		E	MC holder unit MC ホルダーユニット
3	UCLEZ0009QSZ1	AQ	EQ		C	Cleaning blade クリーニングブレード
4	CFRM-0021RS61	AY	FQ	N	E	Process sub unit (Other Countries) フォトリソユニット
5	PSEL-0130QSZZ	AF	DS		C	Seal R シール R
6	PSEL-0129QSZZ	AF	DS		C	Seal F シール F
9	NCPL-0003QSZZ	AC	DJ		C	Screw coupling スクリューカップリング
12	LHLDZ0098QSZZ	AD	DJ		C	Pawl holder (Japan,SRS,SRSSC,Indonesia) 爪ホルダー
	LHLDZ0045QSZZ	AD	DJ		C	Starling holder (Except Japan,SRS,SRSSC,Indonesia) スターリングホルダー
13	LX-WZ0329FCZZ	AB	DD		C	Washer (Except Japan,SRS,SRSSC,Indonesia) CRU 用ワッシャー
14	LX-RZ0001QSZZ	AB	DD		C	Starling(φ5) スターリング
16	PRNGF0106FCZZ	AC	DJ		C	Starling N2 (Japan,SRS,SRSSC,Indonesia) スターリング N2
18	NBRGP0299FCZZ	AC	DJ		C	CL bearing(M5) CL 軸受
19	NSFTZ0020QSZZ	AL	EB		C	Transport screw 搬送スクリュー
20	PMLT-0018QSZZ	AC	DJ		C	Transport screw cushion 搬送スクリューモルト
21	PCAPH0009QSZZ	AC	DJ	N	C	Toner pipe cap トナーパイプキャップ
22	NSFTZ0019QSZZ	AE	DJ	N	C	Transport pipe screw 搬送パイプスクリュー
23	PSPAZ0696FCZZ	AC	DJ		C	P cap spacer P キャップスペーサー
24	PIPP0005QSZZ	AM	EG	N	C	Toner pipe トナーパイプ
25	NGERH0039QSZZ	AE	DS		C	Transport pipe gear(14T) 搬送パイプギヤー
26	MSPRC0045QSZZ	AA	DJ		C	Toner pipe spring トナーパイプバネ
27	PSHT-0004QSZZ	AC	DJ		C	Toner pipe shutter トナーパイプシャッター
28	NGERH0036QSZZ	AC	DJ		C	Transport screw gear(30T) 搬送スクリューギヤー
29	NGERH0038QSZZ	AC	DJ		C	Transport pipe gear(15T) 搬送パイプギヤー
30	NGERH0037QSZZ	AC	DJ		C	Idle gear(26T) アイドルギヤー
31	LFI-X-0007QSZZ	AE	DJ		C	Drum fixing plate B ドラム固定板 B
32	PCOVP0093QSZZ	AE	DS	N	C	Drum cover ドラムカバー
35	PSHEP0135QSZZ	AB	DJ		C	MC guide sheet R MC ガイドシート R
501	CFRM-0021RS6D	BG	GN	N	E	Process frame unit (Other Countries) フォトリソフレームユニット

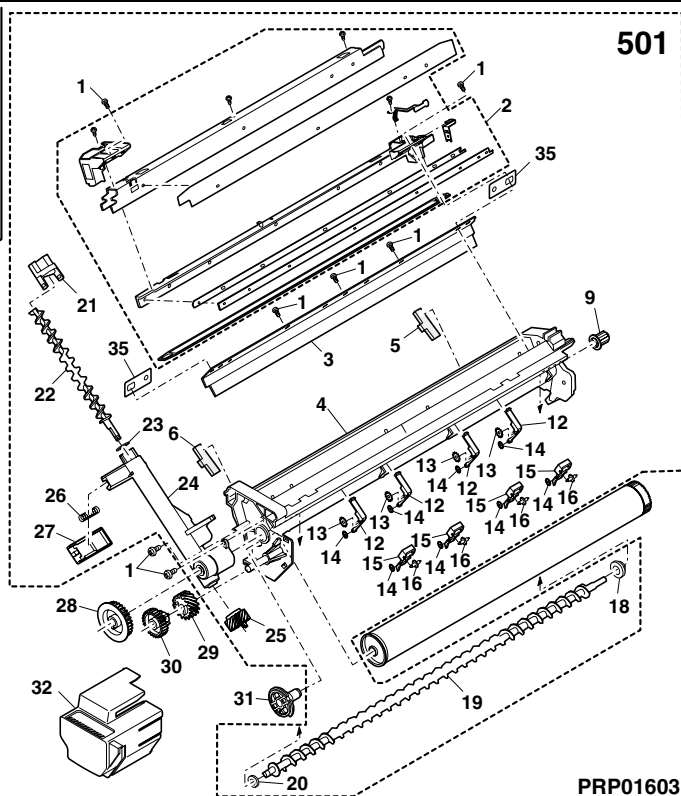
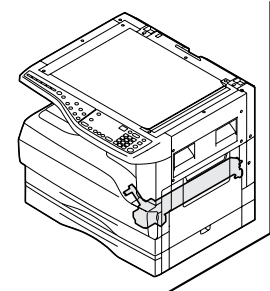
# 8 現像カートリッジユニット (DV cartridge unit)

NO.	PARTS CODE	PRICE RANK		NEW MARK	PART RANK	DESCRIPTION
		Ex.	Ja.			
1	PGIDM0088QSZZ	AP	EQ	N	D	Upper toner guide トナーガイド上
2	XEBSD30P08000	AA	DD		C	Screw(3×8) ビス
3	LX-BZ0027QSZZ	AD	DJ	N	C	DV fixing screw DV ビス
4	PGIDM0089QSZZ	AQ	EQ	N	D	Lower toner guide トナーガイド下
5	PSEL-0065QSZZ	AA	DJ	N	C	TG seal LUAR TG シール LUAR
6	PSEL-0066QSZZ	AC	DJ	N	C	TG seal LRAR TG シール LRAR
7	PSEL-0067QSZZ	AG	DX	N	C	TG seal LDAR TG シール LDAR
8	PSEL-0105QSZZ	AA	DJ	N	C	TN seal FR TN シール FR
9	PSHEP0262QSZZ	AC	DJ	N	C	DV-UND sheet DV-UND シート
10	XBBSD40P10000	AA	DD		D	Screw(4×10) ビス
11	PCOVP0072QS12	AH	DX	N	D	DV cover DV カバー
12	PMLT-0002YSZ1	AC	DJ	N	C	DV TH cushion DV TH モルト
13	PMLT-0005YSZ1	AB	DJ	N	C	DV side cushion lower DV サイドモルト L
14	PBOX-0001YS13	AM	EG	N	C	DV box DV ボックス
15	NROLP0072QS1	AP	EQ	N	C	MX roller MX ローラー
16	PMLT-0006YSZ1	AB	DJ	N	C	DV side cushion R DV サイドモルト R
17	NBRGC0020QSZZ	AH	DX	N	C	Bearing DMX 軸受
18	NGERH0002YSZ1	AD	DJ	N	C	DV gear(28T) DV ギヤー
19	XEBSD30P08000	AA	DD		C	Screw(3×8) ビス
20	NGERH0001YSZ1	AD	DJ	N	C	DV idle gear(20T) DV アイドルギヤー
21	NBRGC0021QSZZ	AD	DJ	N	C	DID bearing DID ベアリング
22	XRESP50-06000	AA	DD		C	E type ring E リング
23	NGERH0145QSZZ	AD	DJ	N	C	DV gear(18T) DV ギヤー
24	PSHEP0035YSZ1	AB	DJ	N	C	DV side sheet N DV サイドシート N
26	NROLM0071QSZZ	AZ	FX	N	C	MG roller MG ローラー
27	LPLTM0002YSZ1	AP	EQ	N	C	Doctor reinforce plate ドクター補強板
28	LPLTM0001YSZ1	AN	EG	N	C	Doctor ドクター
29	XBPBZ30P03000	AB	DD		C	Screw(3×3) ビス
30	LHLDZ0001YSZ1	AD	DJ	N	C	Bearing holder 軸受ホルダー
31	RDTCM0016QSZZ	AZ	FQ	N	B	ATC sensor ATC センサー
32	XUBUZ30P08000	AA	DD		C	Screw(3×8) ビス
33	MSPRK0001YSZ1	AB	DJ	N	C	Bias spring バイアスバネ
34	LHLDZ0072QSZZ	AC	DJ	N	C	MG holder MG ホルダー
35	XBPSD30P06KS0	AA	DD		C	Screw(3×6) ビス
36	LPLTM6022FCZZ	AC	DJ		C	M4 plate M4 プレート
37	PSEL-0063QSZZ	AA	DJ	N	C	DVS seal LRU DVS シール LRU
38	PCOVP0080QSZZ	AE	DS	N	C	DV cover F DV カバー F
39	XEBSD30P10000	AA	DD		C	Screw(3×10) ビス
41	XRESP30-06000	AA	DD		C	E type ring E リング
42	PSEL-0001YSZ1	AE	DS	N	C	DV blade DV ブレード
43	PSEL-0074QSZZ	AC	DJ		C	TG seal BU TG シール BU
46	PSPAP0036QSZZ	AC	DJ		C	TGU spacer FL TGU スペーサー FL
47	PSHEP0324QSZZ	AC	DJ		C	DVB sheet DVB シート
48	PSEL-0114QSZZ	AC	DJ		C	Seal F シール F
49	PSEL-0115QSZZ	AD	DJ		C	Seal F2 シール F2
50	DHA i-0313QSZZ	AH	DX	N	C	Sensor harness センサーハーネス

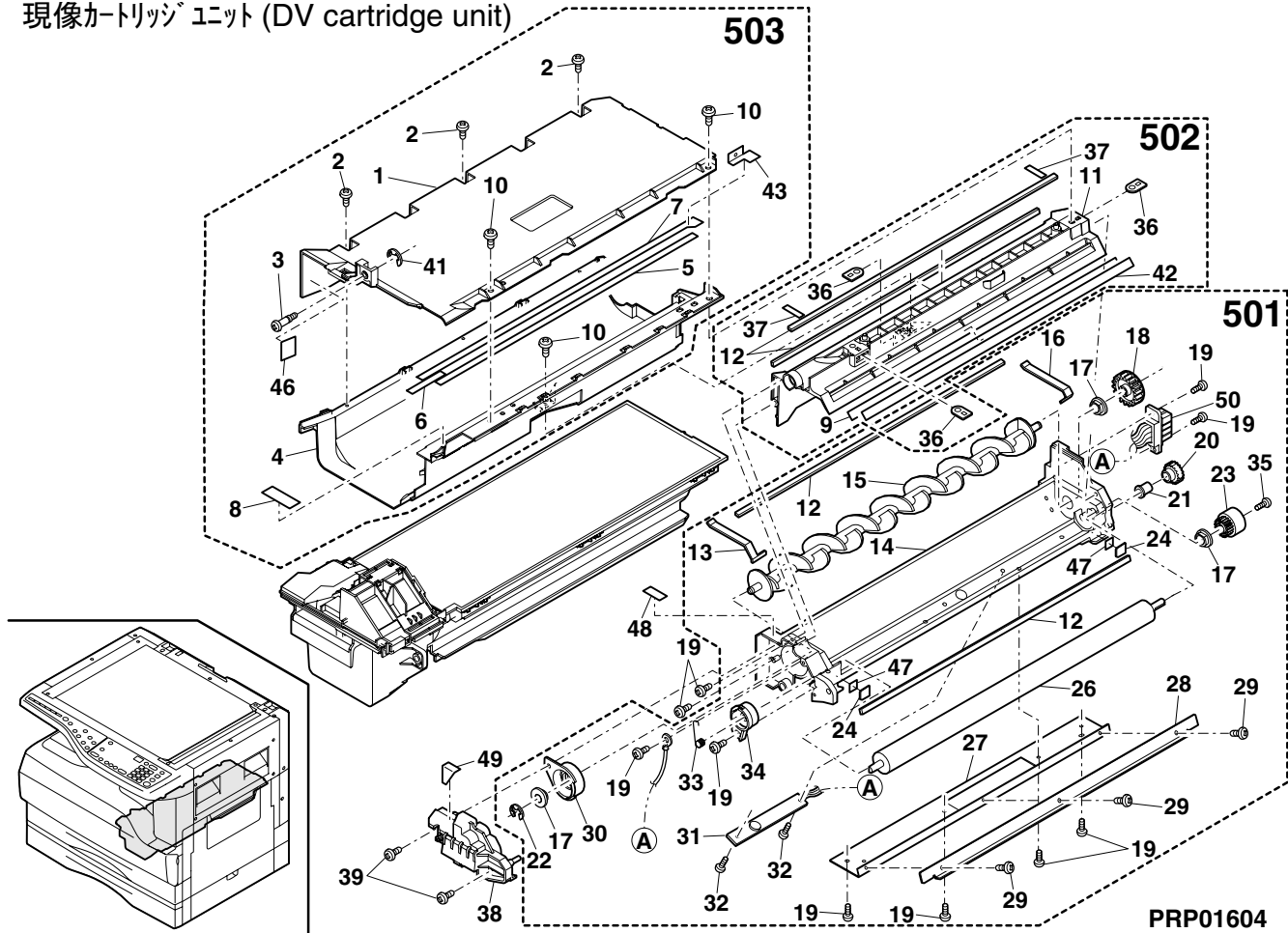
# 8 現像カートリッジ ユニット (DV cartridge unit)

NO.	PARTS CODE	PRICE RANK		NEW MARK	PART RANK	DESCRIPTION
		Ex.	Ja.			
501	CBOX-0001JS5E	BM	HR	N	E	DV box unit DV box ユニット
502	CCOVP0072RS53	AR	EQ	N	E	DV cover unit DV カバーユニット
503	CG1DM0089RS51	AZ	FX	N	E	TN guide unit TN ガイドユニット

## 7 フォーメスユニット (Process unit)

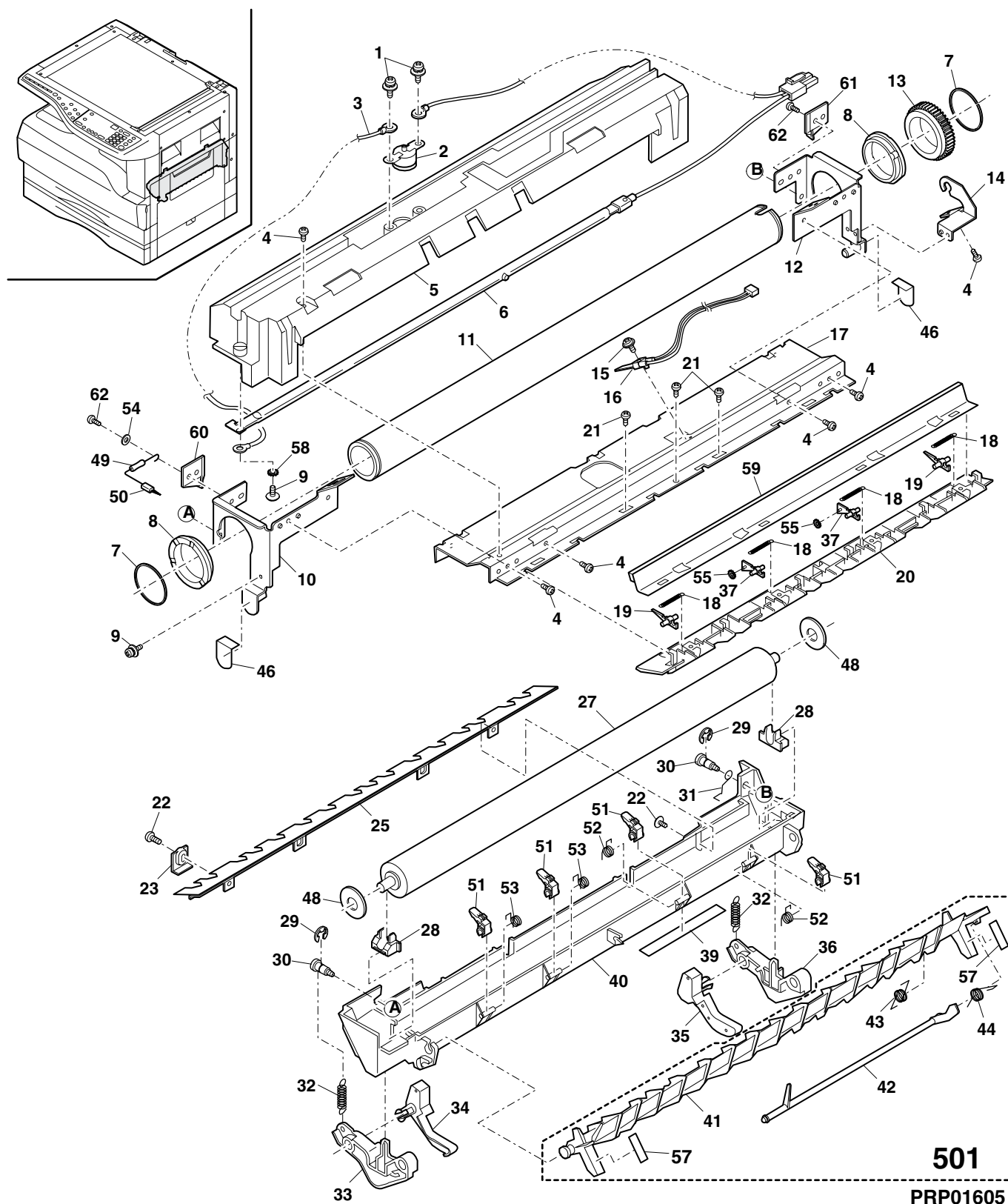


## 8 現像カートリッジ ユニット (DV cartridge unit)





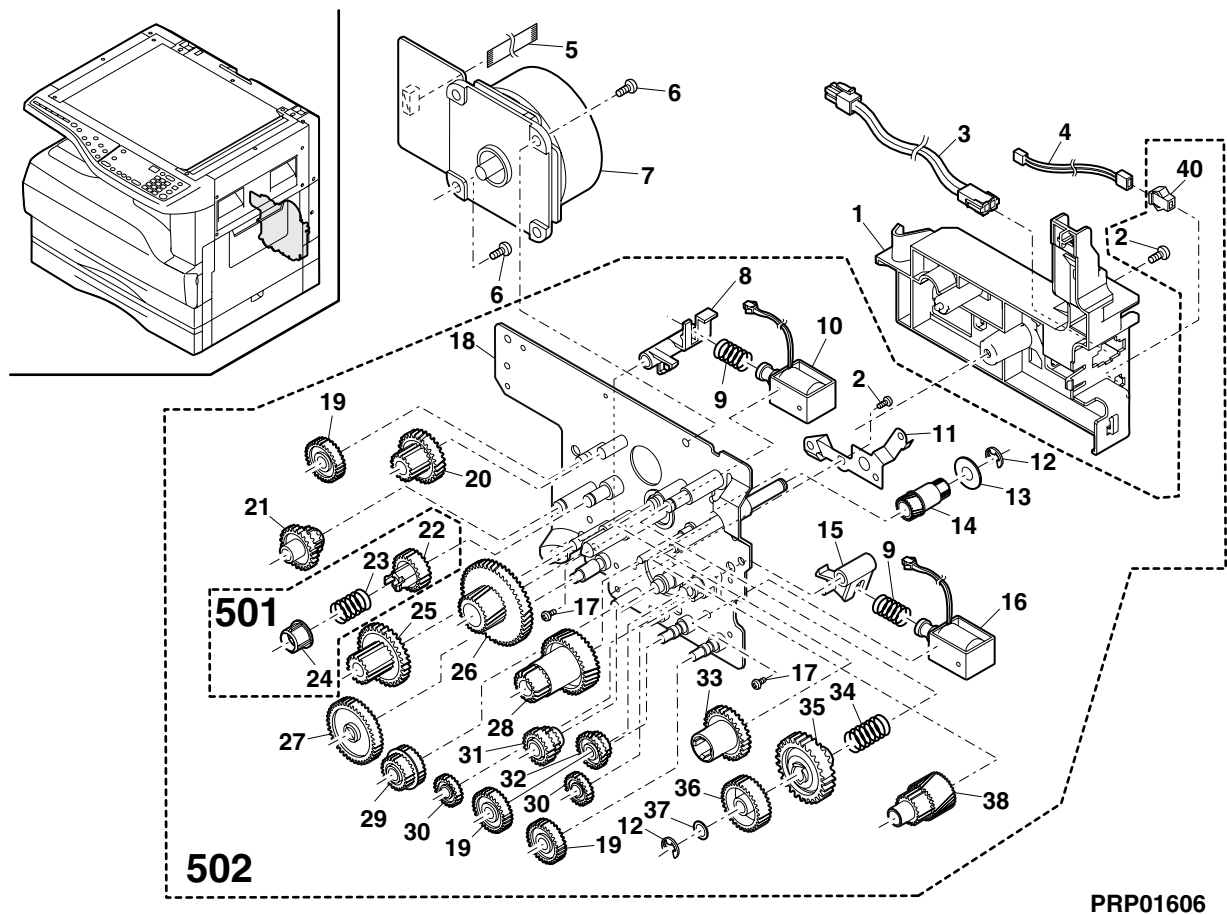
# 9 定着ユニット (Fusing unit)



10 メイン駆動ユニット (Main driving unit)

[illegible]

10 メイン駆動ユニット (Main driving unit)



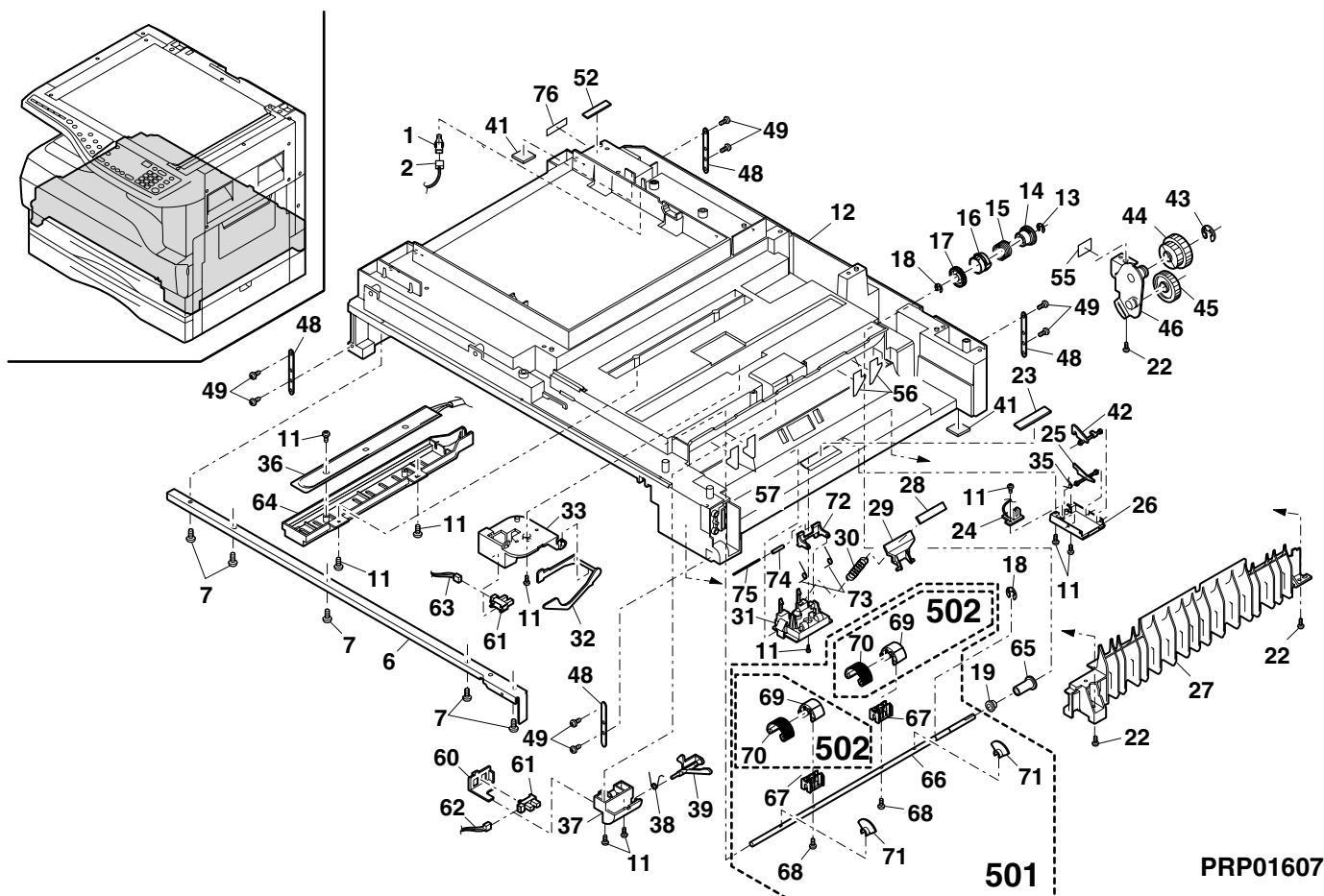


11 台板ユニット 1 (Base plate unit 1)

[illegible]



# 11 台板ユニット 1 (Base plate unit 1)



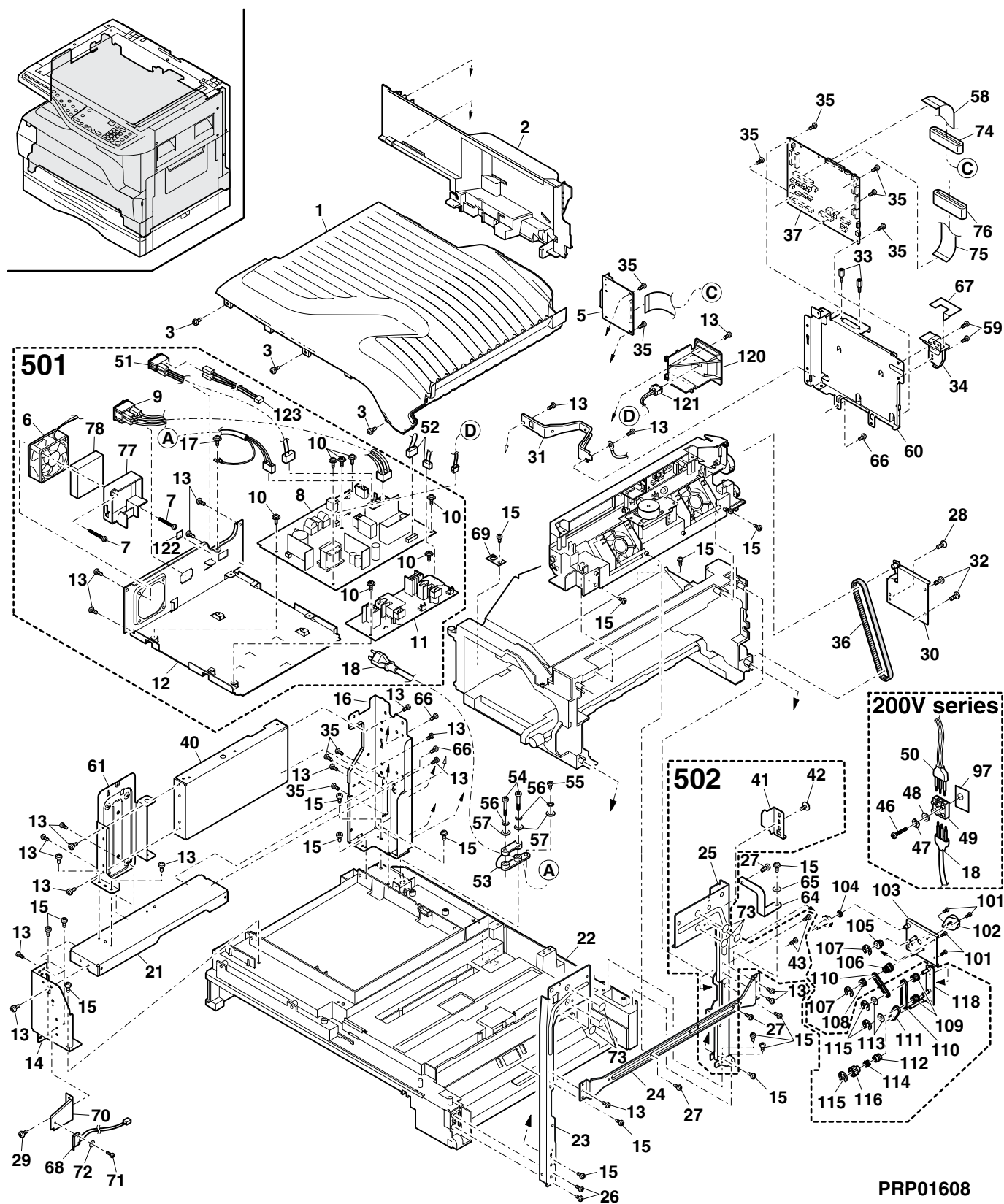
# 12 台板ユニット 2 (Base plate unit 2)

NO.	PARTS CODE	PRICE RANK		NEW MARK	PART RANK	DESCRIPTION
		Ex.	Ja.			
1	LSOU-0036QSZZ	BA	FX	N	D	Delivery tray 排紙トレイ
2	GCAB-0069QSZZ	AT	EZ	N	D	Delivery rear cover 排紙後カバー
3	XEBSE40P10000	AA	DD		C	Screw(4x10) ビス
5	CPWBF0114QSE3	BA	FX	N	E	GDI PWB GDI 基板
6	NFANP0010QSZZ	AS	EQ	N	C	PS fan PS ファン
8	RDENC0010QS12	BN	LE	N	E	Low voltage power supply unit (100V series) 低圧電源ユニット
	RDENC0010QSZZ	BN	LE	N	E	Low voltage power supply unit (120V series) 低圧電源ユニット
	RDENC0010QS13	BN	LE	N	E	Low voltage power supply unit (127V series) 低圧電源ユニット
	RDENC0010QS11	BQ	LP	N	E	Low voltage power supply unit (230V series) 低圧電源ユニット
9	DUNTK0347RSZZ	AW	FG	N	E	AC switch unit AC スイッチユニット
10	XBPSD30P08KS0	AA	DD		C	Screw(3x8KS) ビス
11	RDENC0008QS11	BG	GT	N	E	High voltage power supply unit 高圧電源ユニット
12	LPLTM0082QSZZ	AF	EQ	N	C	PS PWB fixing plate PS PWB 取付け板
13	XHBSD30P06000	AA	DD		C	Screw(3x6) ビス
14	LFRM-0067QSZZ	AK	EB	N	C	Corner frame FL コーナフレーム FL
15	XEBSD40P12000	AA	DD		C	Screw(4x12) ビス
16	LFRM-0068QSZZ	AQ	EQ	N	C	Corner frame RL コーナフレーム RL
17	XBPSN40P06K00	AA	DD		C	Screw(4x6K) ビス
18	QPLGA0001QCZZ	AN	EQ		B	3Pin plug(16A/250V) (Special Country) 3ピンプラグ
	QPLGA0003QCZZ	AN	EQ		B	Plug(13A/250V) (SRS/SRSSC,Indonesia) プラグ
	PHOG-1023CCZZ	AB	DD		C	Plug protector (South Africa,India,SRH) プラグ用保護
	QPLGA4171CCZZ	AN	EG		B	Plug (South Africa,India) プラグ
	QPLGA0009QCZZ	AS	EQ		B	Plug(220V) (SRH) プラグ
	QPLGA0002QCZZ	AN	EQ		B	Plug(125V) (Saudi Arabia) プラグ
	QACCJR614QCPZ	AW	FG	N	B	AC cord(100V) AC コード
	QACCCR614QCPZ	AS	EQ	N	B	AC cord(120V) AC コード
	QACCER624QCPZ	AW	FG	N	B	AC cord(230V) (Europe,Lebanon,Iran,Nigeria,West Africa,Algeria, Egypt,Jordan,Syria,Tunisia,Morocco,STCL) AC コード
	QACCBRA421QCPZ	AZ	FQ	N	B	AC cord(230V) (U.Kingdom, Saudi Arabia,Yemen,Oman,Qatar,Lebanon,Kuwait,UAE) AC コード
	QACCR7421QCZZ	AY	FQ		B	AC cord(10A/250V) [AR-5220(LAG4)] AC コード
	DHAi-0167QSZZ	BA	FX		B	AC cord(127V) (Saudi Arabia) AC コード
21	LPLTM0308QSZZ	AL	EB	N	C	Corner frame reinforce plate コーナフレーム補強板
22	GDAi-0002QSE1	BF	GN	N	C	Base plate 台板
23	LFRM-0025QSZZ	AH	DX		C	Corner frame FR コーナフレーム FR
24	LPLTM0099QSZZ	AK	DX	N	C	Corner frame R reinforce plate コーナフレーム R 補強板

12 台板ユニット 2 (Base plate unit 2)



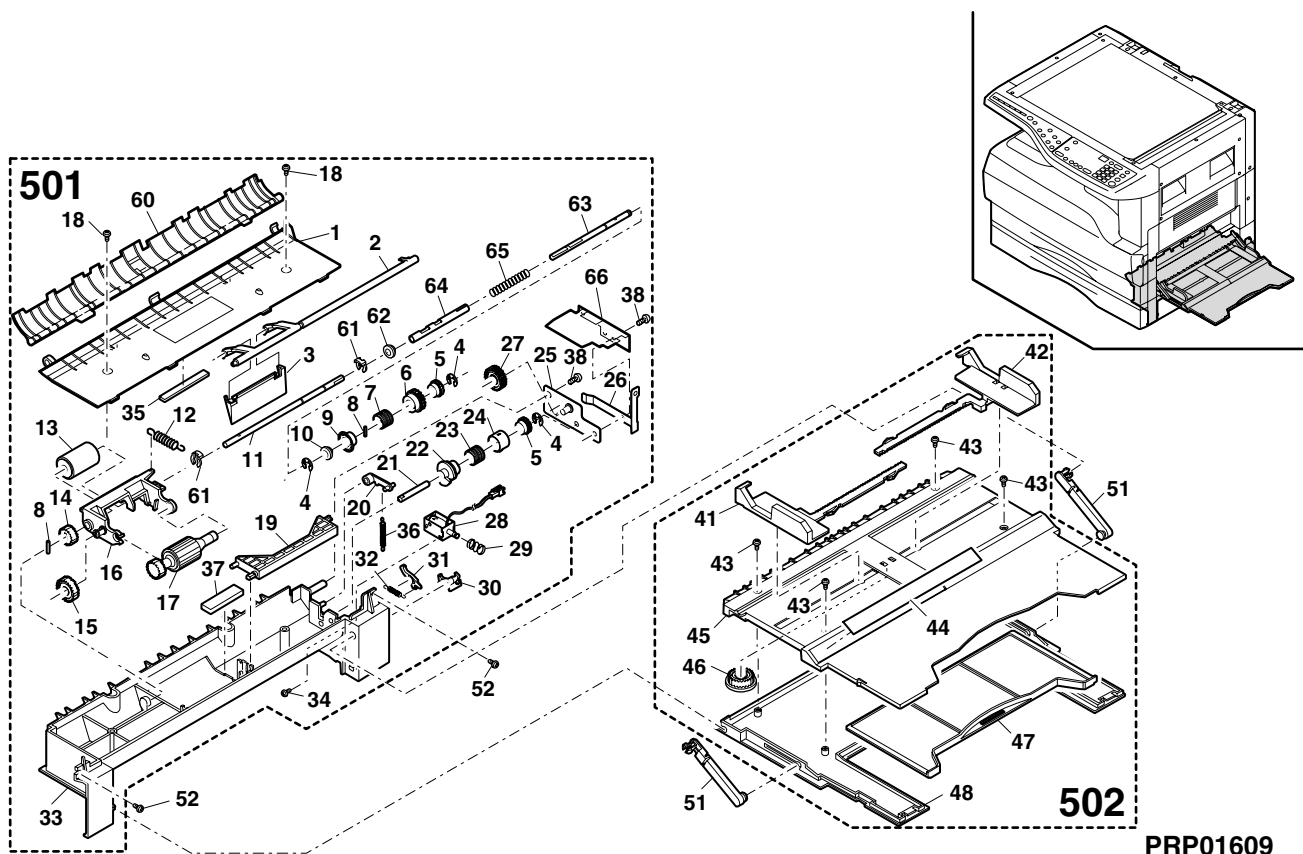
## 12 台板ユニット 2 (Base plate unit 2)



13 手差しマルチユニット (Manual paper feeding multi unit)

[illegible]

13 手差しマルチユニット (Manual paper feeding multi unit)

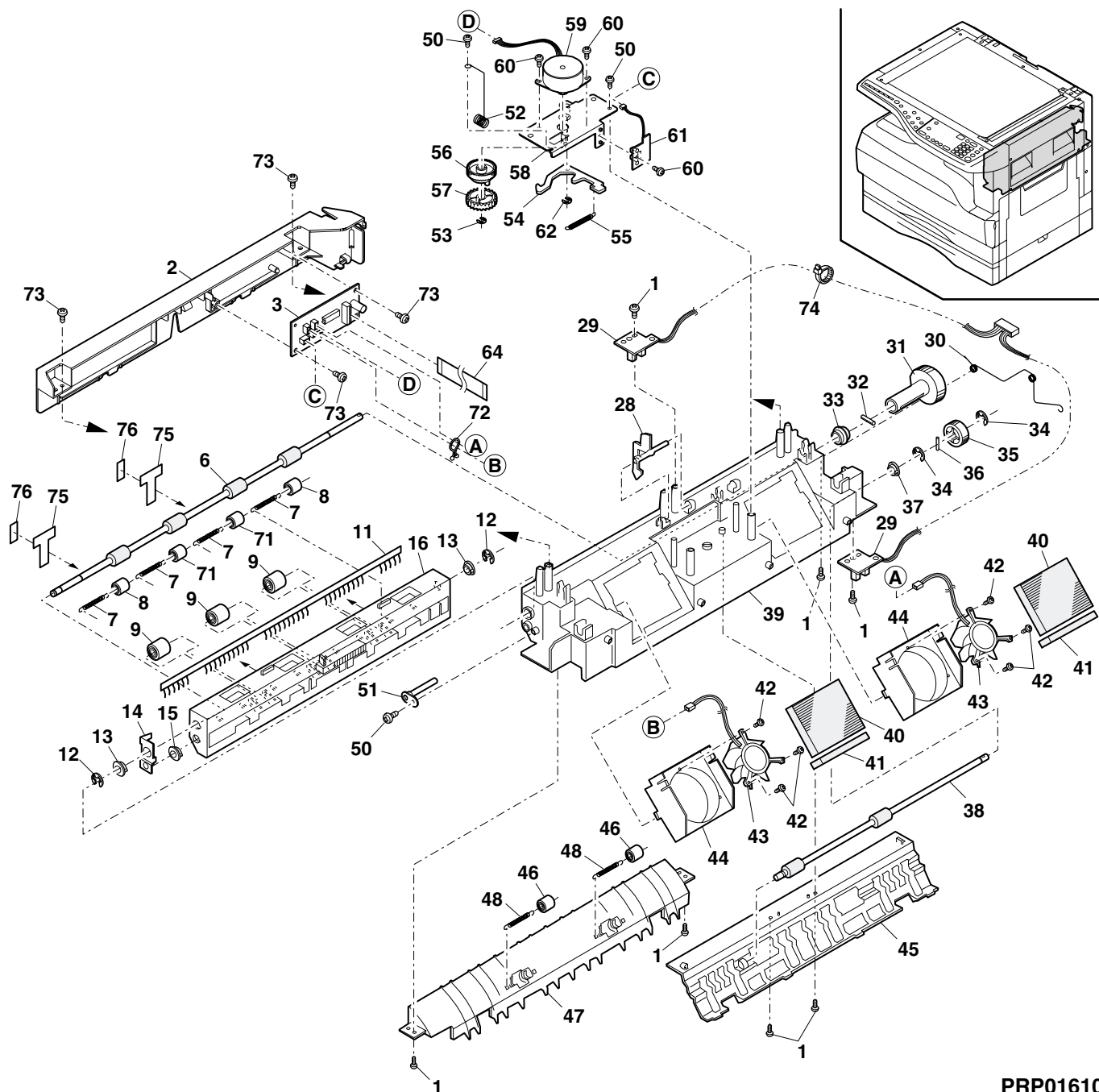


PRP01609

14 排紙フレームユニット (Delivery frame unit)

NO.	PARTS CODE	PRICE RANK		NEW MARK	PART RANK	DESCRIPTION	
		Ex.	Ja.				
1	XEBSD30P08000	AA	DD		C	Screw(3x8)	ビス
2	GCOV-0049QSZ1	AK	EB	N	C	Delivery front side cover	排紙前カバー
3	CPWBF0129QSE1	AQ	EQ	N	E	Delivery interface PWB	排紙中継基板
6	NROLM0103QSZZ	AQ	EQ	N	C	Delivery roller C	排紙ローラー C
7	MSPRT0229GCAZ	AC	DJ		C	FU spring R	FUバネ R
8	NROLP0034QSZZ	AD	DJ	N	C	Delivery roller	排紙従動ローラー
9	NKOM-0002QSZZ	AC	DJ	N	C	Delivery collar	排紙コリ
11	PBRSR0009QSZ1	AH	DX	N	B	Discharge brush [AR-200M/AR-160M/AR-M160/AR-5220]	除電ブラシ
12	PBRSR0005QSZZ	AK	EB		B	Discharge brush [AR-M205]	除電ブラシ
13	XRESP50-06000	AA	DD		C	E type ring	E リング
14	NBRGC0529FCZZ	AD	DJ		C	Bearing	軸受
15	LPLTM0100QSZ1	AD	DJ	N	C	Delivery earth plate B	排紙アース板 B
16	NBRGY2122SCZZ	AB	DD		B	Transport roller bearing 1	搬送ローラーベアリング 1
17	LHLDZ0040QSZ2	AS	EQ	N	C	Delivery roller holder	排紙従動ローラーホルダー
28	MLEVP0106QSZZ	AD	DJ	N	C	Delivery actuator	排紙アクチュエータ
29	CPWBF0147QSE2	AP	EQ	N	E	Duplex/P-out sensor PWB	DUP/P-OUT センサー基板
30	MSPRD0143QSZ1	AF	DS		C	Delivery earth spring A	排紙アースバネ A
31	NPLYZ0030QSZZ	AE	DJ	N	C	Delivery pulley [AR-200M/AR-160M/AR-M160/AR-5220]	排紙プーリー
32	NGERH0063QSZZ	AD	DJ		C	Delivery drive gear(30T) [AR-M205]	排紙駆動ギヤー
33	LPI NS0258FCZZ	AA	DD		C	Spring pin(φ3-8)	スプリングピン
34	NBRGC0019QSZZ	AD	DJ		C	Bearing(φ6)	軸受
35	XRESP40-06000	AA	DD		C	E type ring [AR-M205]	E リング
36	NGERH0070QSZZ	AC	DJ		C	DUP delivery R gear(20T) [AR-M205]	DUP 排紙 R ギヤー
37	XPSSJ20-10000	AA	DD		C	Spring pin(φ2-10) [AR-M205]	スプリングピン
38	NBRGY2122SCZZ	AB	DD		B	Transport roller bearing 1 [AR-M205]	搬送ローラーベアリング 1
39	NROLP0038QSZZ	AP	EQ		C	DUP delivery roller [AR-M205]	DUP 排紙ローラー
40	LFRM-0027QSZZ	AS	EQ	N	C	Delivery frame	排紙フレーム
41	PFILZ0004QSZZ	AM	EG		B	Ozone filter [AR-160M/AR-M160/AR-M205/AR-5220]	オゾンフィルター
42	PFILZ0008QSZZ	AL	EB		B	Ozone filter 20 [AR-200M]	オゾンフィルター 20
43	PMLT-0027QSZZ	AC	DJ		C	Cleaning fan cushion	クーリングファンモルト
44	XEBSD20P06000	AA	DD		C	Screw(2x6)	ビス
45	NFANP0009QSZZ	AT	EZ	N	B	Cooling fan	クーリングファン
46	PDUC-0003QSZ1	AG	DX		C	Cleaning fan duct	クーリングファンダクト
47	PGIDM0062QSZ1	AP	EQ	N	C	Delivery upper paper guide 20	排紙上ペーパーガイド 20
48	NROLP1122FCZZ	AF	DS		C	PS upper roller [AR-M205]	PS 上ローラー
49	PGIDM0040QSZZ	AK	DX	N	C	Delivery lower paper guide [AR-160M/AR-M160/AR-M205/AR-5220]	排紙下ペーパーガイド
50	PGIDM0063QSZ1	AP	EQ		C	Delivery lower paper guide 20 [AR-200M]	排紙下ペーパーガイド 20
51	MSPRT0229GCAZ	AC	DJ		C	FU spring R [AR-M205]	FUバネ R
52	XEBSD30P08000	AA	DD		C	Screw(3x8)	ビス
53	CSFTZ0023QS02	AH	DX		C	Shifter shaft	シフターシャフト
54	MSPRD0144QSZZ	AC	DJ		C	Delivery earth spring B	排紙アースバネ B
55	XRESP40-06000	AA	DD		C	E type ring	E リング
56	LSTPP0003QSZ1	AC	DJ		C	Shifter stopper	シフターストッパ
57	MSPRT0107QSZZ	AC	DJ		C	Shifter return spring	シフター復帰バネ
58	NGERH0067QSZZ	AD	DJ		C	Shifter gear(24T)	シフターギヤー
59	NGERH0068QSZ1	AD	DJ		C	Shifter gear(50T)	シフターギヤー
60	CPLTM0007QS01	AL	EB		C	Shifter drive plate	シフター駆動板
61	RMOTS0040QSZZ	AR	EQ	N	B	Shifter motor	シフターモーター
62	XHBSF30P05000	AA	DD		C	Screw(3x5)	ビス
63	CPWBF0147QSE3	AL	EB	N	E	Shifter HP sensor PWB	シフター HP センサー基板
64	XRESP30-06000	AA	DD		C	E type ring	E リング
65	DHA i-0325QSZZ	AD	DJ	N	C	Delivery tray unit harness	排紙トレイユニットハネス
66	NROLP0104QSZZ	AC	DJ	N	C	Delivery roller	排紙従動ローラー
67	LHLDW0086QSZZ	AB	DJ		C	Holder	ホルダー
68	XHBSD30P08000	AA	DD		C	Screw(3x8)	ビス
69	LBNDJ0013FCZ1	AE	DJ		C	Cable band	ケーブルバンド
70	PSHEZ0446QSZZ	AB	DJ	N	C	Delivery sheet	排紙マイラー
71	(Unit)						

14 排紙フレームユニット (Delivery frame unit)



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15 TC ケースユニット (TC case unit)

NO.	PARTS CODE	PRICE RANK		NEW MARK	PART RANK	DESCRIPTION
		Ex.	Ja.			
1	XEBSE30P08000	AA	DD		C	Screw(3×8) ビス
2	PGIDH0118QSZZ	AK	DX	N	C	TC front guide TC 前ガイド
3	PSHEP0050QSZ1	AD	DJ	N	C	TC sheet TC マイラー
5	PSHEP0051QSZZ	AB	DJ	N	C	TC cover sheet F TC カバーマイラー F
6	LHLDZ0030QSZZ	AD	DJ	N	C	TC holder F TC ホルダー F
7	DWIR-0466CSZZ	BG	HC		B	Charger wire チャージャー線
8	MSPRT0513FCZ1	AA	DJ		C	MC tension spring MC テンションバネ
9	PSHEP0052QSZZ	AB	DJ	N	C	TC cover sheet R TC カバーマイラー R
10	LHLDZ0032QSZZ	AD	DJ	N	C	TC holder R TC ホルダー R
11	QSLP-0009QSZZ	AD	DJ	N	C	TC electrode plate TC 電極板
12	PCASZ0013QSZZ	AP	EQ	N	C	TC case TC ケース
13	LHLDZ0031QSZ3	AH	EQ	N	C	Discharge holder 除電ホルダー
14	QSLP-0008QSZZ	AD	DJ	N	C	BC electrode plate BC 電極板
16	PGIDM0032QSZZ	AE	DS	N	C	Separator guide 剥離ガイド
17	XEBSD30P06000	AA	DD		C	Screw(3×6) ビス
19	PSHEZ0125QSZZ	AE	DS	N	C	Discharger delivery sheet 除電排紙シート
20	PSHEZ0434QSZZ	AC	DJ	N	C	TC case sheet TC ケースマイラー
21	DUNTK0233QSZZ	CA	TR		E	Resistor unit transfer 抵抗ユニット転写
22	XPSC30P06K00	AA	DD		C	Screw(3×6K) ビス
23	PSHEZ0435QSZZ	AA	DJ	N	C	Guide sheet ガイドマイラー
24	PSPAZ0040QSZZ	AB	DJ	N	C	Front guide spacer 前ガイドスパーサー

15 TC ケースユニット (TC case unit)

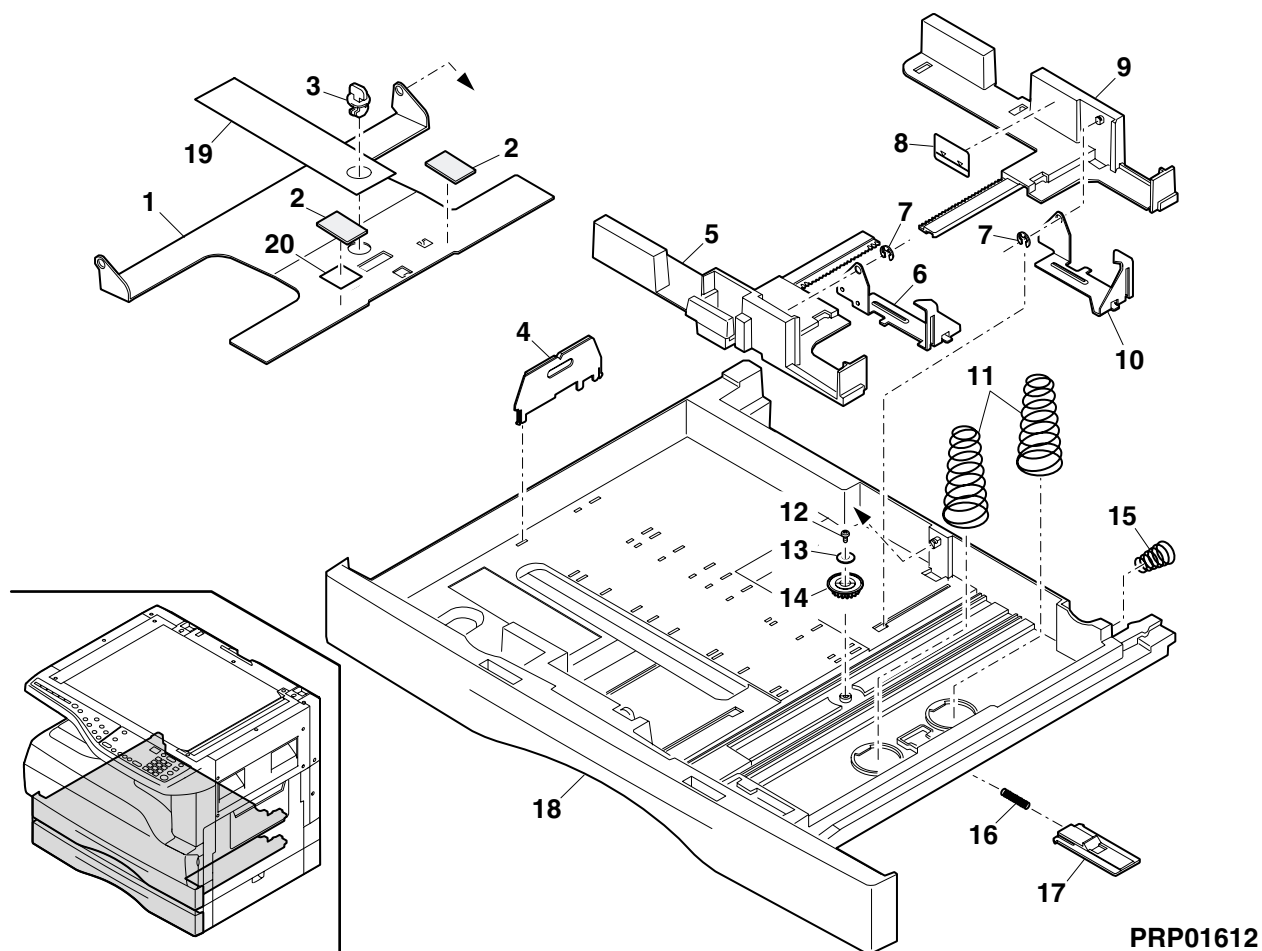




16 250 枚トレイユニット (250 sheets tray unit)

NO.	PARTS CODE	PRICE RANK		NEW MARK	PART RANK	DESCRIPTION
		Ex.	Ja.			
1	LPLTM0053QSZ1	AS	EQ		C	Rotation plate 回転板
2	PSHEZ0441QSZZ	AD	DJ	N	C	Rotation plate sheet 回転板シート
3	LHLDW1226FCZZ	AB	DJ		C	Turn faster ターンファスター
4	LPLTM2642FCG2	AD	DJ		C	Tray rear plate カセット後端板
7	XRESP40-06000	AA	DD		C	E type ring E リング
8	TLABH0064QSZ1	AC	DJ		D	Indicator label 指示線ラベル
11	MSPRC0334QSZZ	AD	DJ	N	C	Tray spring トレイバネ
12	XEBSD30P08000	AA	DD		C	Screw(3x8) ビス
13	XWHSD30-08100	AA	DD		C	Washer ワッシャー
14	NGERH0193FCZZ	AB	DD		C	UC manual feed gear UC 手差しギヤー
15	MSPRC0152QSZZ	AB	DJ		C	Tray drawer lower spring D カセット押しバネ D
16	MSPRC1145FCZZ	AA	DD		C	Stopper spring ストッパースプリング
17	LSTPP0161FCZZ	AB	DD		C	Rotation plate stopper 回転板ストッパー
18	GCASP0003QSE2	BD	GN	N	D	Tray case トレイケース
19	TTAG-0004QSZZ	AC	DJ		D	Tray rotation tag トレイ回転タグ
20	PSPA00022QSZZ	AC	DJ		C	Rotation plate spacer 回転板スペーサー
	(Unit)					
901	CCASP0003RS54	BL	HG	N	E	250 Tray unit 250 トレイユニット

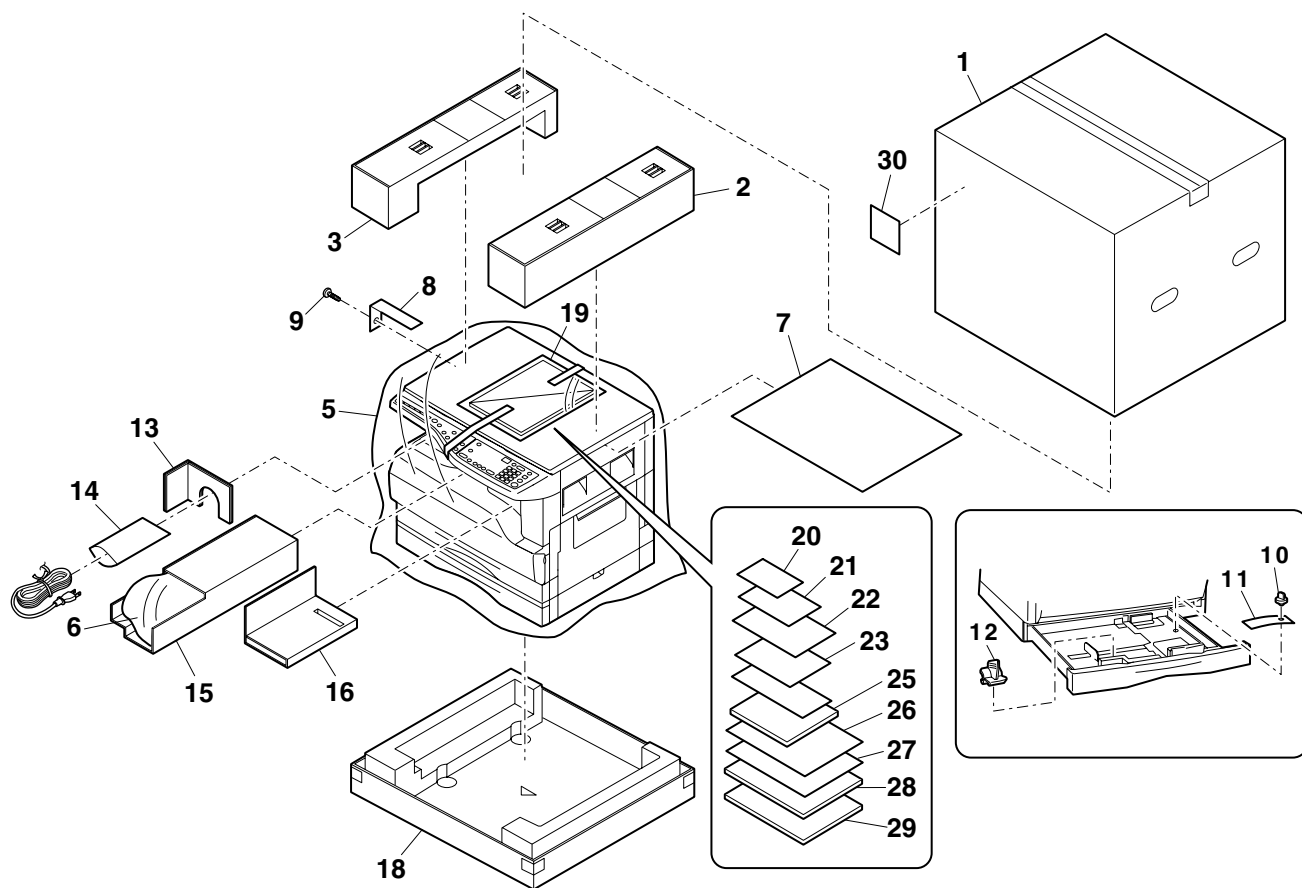
16 250 枚トレイユニット (250 sheets tray unit)



## 17

[illegible]

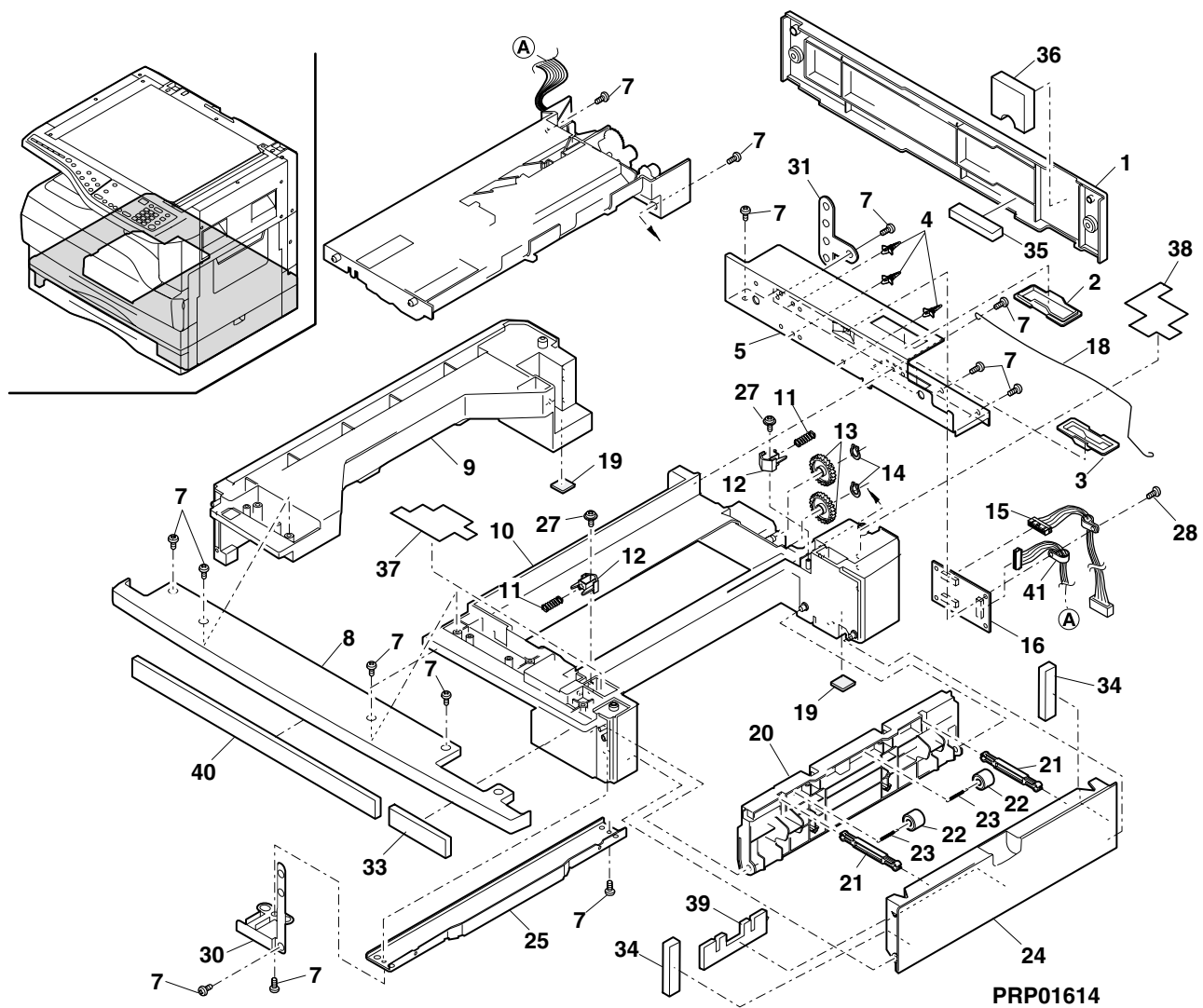
# 17 梱包材&付属品 (Packing material & Accessories)



## 18

[illegible]

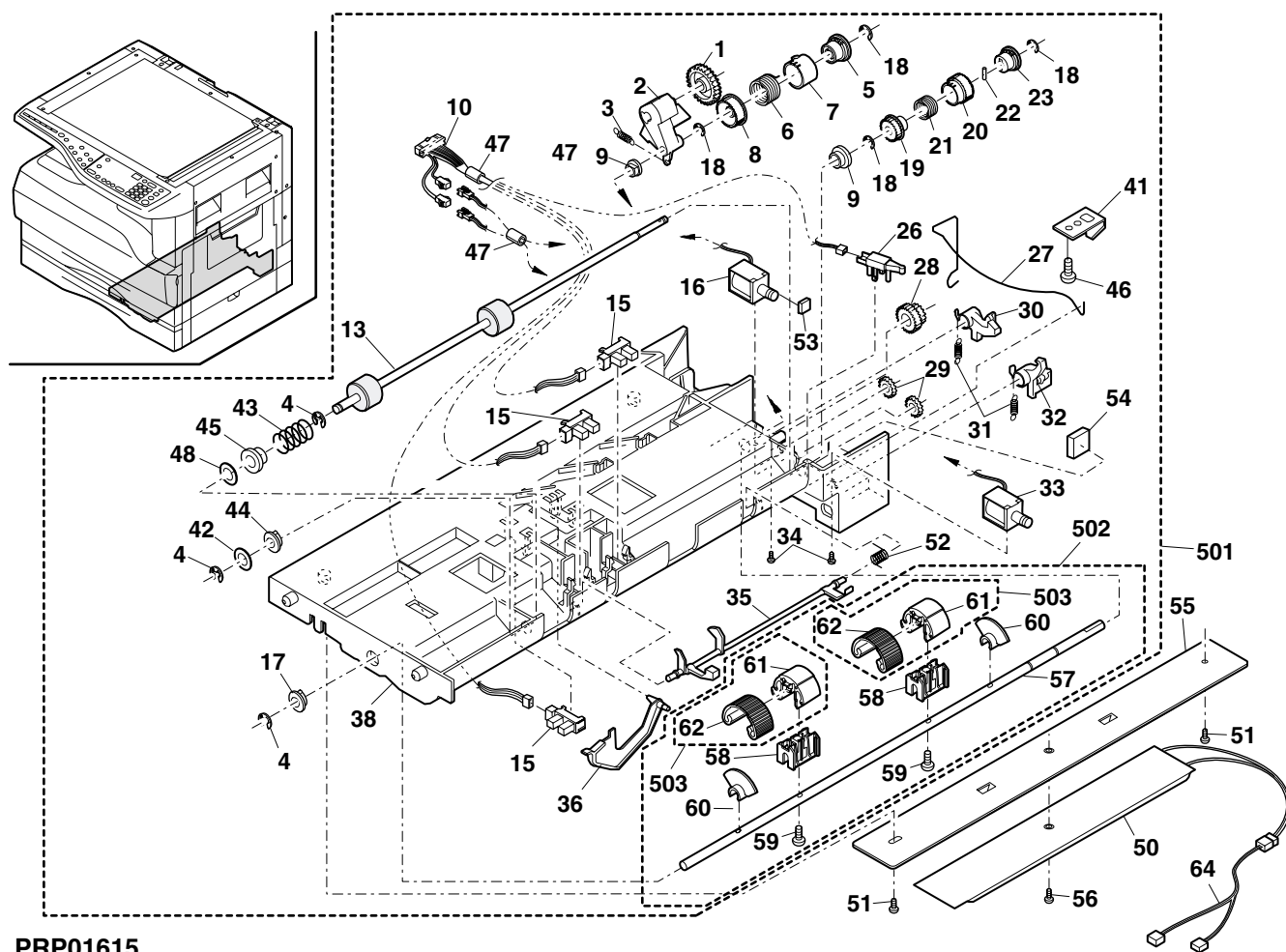
18 1ST トリ外装 (1ST Tray exteriors)..AR-200M,AR-M205



19 1STトレイ給紙ユニット (1ST Tray paper feeding unit)..AR-200M,AR-M205

[illegible]

19 1STトレイ給紙ユニット (1ST Tray paper feeding unit)..AR-200M,AR-M205



PRP01615

# ■ 索引 (Index)

PARTS CODE	JAPAN ONLY ORDER CODE	NO.	PRICE R.		NEW	P/R
			Ex.	Ja.		
【C】						
CARMP0010QS01	572 240 0343	1- 12	AD	DJ		C
CBOX-0001JS5E	578 307 0105	8-501	BM	HR	N	E
CBTN-0060QS01	578 170 0225	2- 7	AK	DX	N	C
CBTN-0061QS01	578 170 0226	2- 8	AE	DS	N	C
CBTN-0062QS01	578 170 0227	2- 10	AF	DS	N	C
CBTN-0062QS02	578 170 0229	2- 10	AE	DS	N	C
CBTN-0067QS01	578 170 0228	2- 3	AG	DS	N	C
CCAB-0073RS52	578 107 0564	2-901	BP	LP	N	E
CCAB-0073RS53	578 107 0565	2-901	BP	LP	N	E
CCAB-0073RS58	578 107 0566	2-901	BP	LP	N	E
CCAB-0073RS59	578 107 0567	2-901	BP	LP	N	E
CCAB-0073RS60	578 107 0568	2-901	BQ	LP	N	E
CCAB-0079QS01	578 107 0561	1- 27	AQ	EQ	N	D
CCASP0003RS54	578 108 0135	16-901	BL	HG	N	E
CCASZ0067FC01	572 108 0589	17- 23	AD	DJ		D
CCASZ0067FC02	572 108 0590	17- 23	AM	EG		D
CCLEZ0005RS51	578 704 0029	17- 12	AQ	EQ		E
CCOV-0046QS01	578 110 0235	1- 11	AV	FG	N	D
CCOV-0046QS02	578 110 0236	1- 11	AX	FG	N	D
CCOV-0046QS05	578 110 0238	1- 11	AW	FG	N	D
CCOV-0046QS06	578 110 0239	1- 11	AX	FG	N	D
CCOV-0046QS07	578 110 0251	1- 11	AX	FG	N	D
CCOVH0010RS56	578 110 0244	1-501	BK	HG	N	E
CCOVP0072RS53	578 110 0137	8-502	AR	EQ	N	E
CDAIU0012QS10	578 210 0097	4- 48	BH	GX	N	D
CDENC0010RS51	578 719 0001	12-501	BW	RB	N	E
CDENC0010RS53	578 719 0002	12-501	BW	RJ	N	E
CDOR-0004RS51	578 113 0013	3-901	BC	GD	N	E
CDOR-0004RS52	578 113 0014	3-901	BD	GN	N	E
CFiX-0024QS01	578 211 0084	1- 7	AL	EB	N	D
CFiX-0024QS02	578 211 0085	1- 7	AL	EB	N	D
CFiX-0024RS51	578 211 0088	1-502	BD	GJ	N	E
CFiX-0024RS52	578 211 0089	1-502	BD	GJ	N	E
CFRM-0017QS01	572 213 1886	9- 10	AH	DX		C
CFRM-0018QS01	572 213 1887	9- 12	AH	DX		C
CFRM-0020RS55	578 213 0470	13-501	BG	GT	N	E
CFRM-0021RS61	578 213 0460	7- 4	AY	FQ	N	E
CFRM-0021RS6D	578 213 0471	7-501	BG	GN	N	E
CFRM-0027RS72	578 213 0472	14-901	BP	LP	N	E
CFRM-0027RS73	578 213 0473	14-901	BQ	LP	N	E
CFRM-0027RS74	578 213 0474	14-901	BQ	LP	N	E
CFRM-0031RS5C	578 213 0476	19-501	BL	HL	N	E
CGERH0011RS51	578 281 0360	10-501	AE	DS		E
CGiDM0089RS51	578 345 0455	8-503	AZ	FX	N	E
CGUMMO013RS51	578 352 0054	11-502	AN	EG	N	E
〃	578 352 0054	19-503	AN	EG	N	E
CHAi-0107RS52	578 427 0100	6- 11	AM	EG	N	E
CHAi-0109RS52	578 427 0101	6- 10	AN	EG	N	E
CHLDZ0035RS51	578 214 0208	7- 2	BH	GX		E
CHNG-0007QS02	578 246 0038	1- 3	AM	EG	N	C
CLNS-0006RS51	578 372 0021	4- 8	BZ	TF	N	E
CMiR-0008QS35	578 374 0026	4- 2	BB	GD	N	E
〃	578 374 0026	5-901	BB	GD	N	E
CPLTM0047QS02	572 221 7150	10- 18	BA	FX		C
CPLTM0047QS03	578 221 0792	10- 18	AZ	FQ	N	C
CPLTM0047RS56	578 221 0781	10-901	BN	HV	N	E
CPLTM0047RS57	578 221 0782	10-901	BN	HV	N	E
CPLTM0047RS76	578 221 0783	10-502	BE	GN	N	E
CPLTM0047RS77	578 221 0784	10-502	BE	GN	N	E
CPLTM0071QS02	578 221 0646	12- 30	AL	EB	N	C
CPLTM0073QS01	572 221 7137	12-103	AM	EG		B
CPLTM0075QS01	572 221 7036	14- 58	AL	EB		C
CPLTM0103QS01	572 221 7133	12-118	AG	DX		B
CPLTM0114QS01	572 221 7018	11- 46	AG	DX	N	B
CPLTM0155QS02	578 221 0679	5- 13	AH	DX		C
CPLTM0156QS02	578 221 0680	5- 9	AH	DX		C
CPLTM0255QS01	572 221 7703	9- 59	AS	EQ		C
CPLTM0312QS01	578 221 0785	4- 32	AK	DX	N	C
CPLTP0060RS52	578 221 0647	9-501	BU	NN		E
CPNLH0026QS01	578 158 0394	2- 17	AU	EZ	N	D
CPNLH0026QS02	578 158 0392	2- 17	AU	EZ	N	D
CPNLH0026QS03	578 158 0395	2- 17	AV	FG	N	D
CPNLH0026QS04	578 158 0396	2- 17	BA	FX	N	D
CPNLH0026QS05	578 158 0397	2- 17	AV	FG	N	D
CPNLH0026QS08	578 158 0398	2- 17	AV	FG	N	D
CPNLH0026QS09	578 158 0399	2- 17	AV	FG	N	D
CPNLH0026QS10	578 158 0400	2- 17	BA	FX	N	D
CPNLH0026QS11	578 158 0401	2- 17	BA	FX	N	D

PARTS CODE	JAPAN ONLY ORDER CODE	NO.	PRICE R.		NEW	P/R
			Ex.	Ja.		
CPNLH0026QS13	578 158 0402	2- 17	AU	EZ	N	D
CPNLH0026QS15	578 158 0403	2- 17	BA	FX	N	D
CPNLH0026QS16	578 158 0404	2- 17	AU	EZ	N	D
CPNLH0026QS18	578 158 0405	2- 17	AU	EZ	N	D
CPNLH0026QS19	578 158 0406	2- 17	BA	FX	N	D
CPNLH0026QS20	578 158 0407	2- 17	BA	FX	N	D
CPNLH0027QS02	578 158 0393	2- 19	AT	EZ	N	D
CPNLH0027QS03	578 158 0408	2- 19	AU	FG	N	D
CPNLH0028QS01	578 158 0409	2- 19	AV	FG	N	D
CPNLH0028QS02	578 158 0410	2- 19	AU	EZ	N	D
CPNLH0028QS03	578 158 0411	2- 19	AT	EZ	N	D
CPWBF0019QSE5	578 684 1103	18- 16	AV	FG	N	E
CPWBF0114QSE3	578 684 1122	12- 5	BA	FX	N	E
CPWBF0129QSE1	578 684 1123	14- 3	AQ	EQ	N	E
CPWBF0147QSE1	578 684 1124	4- 22	AL	EB	N	E
CPWBF0147QSE2	578 684 1125	14- 29	AP	EQ	N	E
CPWBF0147QSE3	578 684 1126	14- 61	AL	EB	N	E
CPWBF0147QSE4	578 684 1127	11- 24	AL	EB	N	E
CPWBX0128QS31	578 684 1105	12- 37	CA	TR	N	E
CPWBX0128QS32	578 684 1108	12- 37	CA	TV	N	E
CPWBX0128QS34	578 684 1106	12- 37	CA	TV	N	E
CPWBX0128QS36	578 684 1128	12- 37	CA	TV	N	E
CREFL0005RS51	578 432 0004	4-501	BH	HC	N	E
CSFTZ0023QS02	578 290 0230	14- 51	AH	DX		C
CSFTZ0066RS72	578 290 0231	11-501	AW	FG	N	E
CSFTZ0067RS52	578 290 0232	19-502	AW	FG	N	E
CSOU-0009QS34	578 226 0246	13-502	BA	FX	N	E
CSOU-0009QS35	578 226 0251	13-502	BA	FX	N	E
CSW-M0007RS55	578 530 0124	12- 68	AS	EZ	N	E
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CSW-M0007RS55	578 530 0124	6- 2	AS	EZ	N	E
【D】						
DHAI-0075QSZ1	578 542 0313	19- 10	AR	EQ	N	C
DHAI-0106QSZ2	578 542 0314	6- 24	AK	DX	N	C
DHAI-0108QSZ1	578 542 0315	6- 25	AH	DX	N	C
DHAI-0110QSZ1	578 542 0316	10- 3	AL	EB	N	C
DHAI-0140QSZ1	578 542 0344	12- 50	AH	DX	N	C
DHAI-0167QSZZ	578 542 0171	12- 18	BA	FX		B
DHAI-0184QSZ1	578 542 0318	9- 3	AE	DS	N	C
DHAI-0313QSZZ	578 542 0306	8- 50	AH	DX	N	C
DHAI-0315QSZZ	578 542 0319	11- 2	AD	DJ	N	C
DHAI-0316QSZZ	578 542 0320	11- 63	AE	DJ	N	C
DHAI-0318QSZZ	578 542 0321	11- 62	AE	DJ	N	C
DHAI-0320QSZZ	578 542 0322	12- 52	AN	EQ	N	C
DHAI-0321QSZZ	578 542 0323	6- 63	AH	DX	N	C
DHAI-0322QSZZ	578 542 0324	6- 8	AS	EQ	N	C
DHAI-0323QSZZ	578 542 0325	10- 5	AC	DJ	N	C
DHAI-0324QSZZ	578 542 0326	2- 20	AH	DX	N	C
DHAI-0325QSZZ	578 542 0327	14- 64	AD	DJ	N	C
DHAI-0326QSZZ	578 542 0328	18- 15	AM	EG	N	C
DHAI-0327QSZZ	578 542 0329	10- 4	AD	DJ	N	C
DHAI-0328QSZZ	578 542 0330	12- 58	AH	DX	N	C
DHAI-0332QSZZ	578 542 0331	4- 81	AE	DJ	N	C
DHAI-0333QSZZ	578 542 0332	6- 57	AL	EB	N	C
DHAI-0340QSZZ	578 542 0348	12-123	AH	DX	N	C
DHAI-0342QSZZ	578 542 0333	12- 75	AG	DX	N	C
〃						
DHAI-0344QSZZ	578 542 0333	4- 9	AG	DX	N	C
DHAI-0345QSZZ	578 542 0345	19- 64	AH	DX	N	C
DHAI-0403QSZZ	578 542 0347	12-121	AG	DS	N	C
DUNT-0341RSZZ	578 685 0682	12-502	AV	FG	N	E
DUNT-0342RSZZ	578 685 0683	12-502	AZ	FQ	N	E
DUNTK0233QSZZ	578 685 0499	15- 21	CA	TR		E
DUNTK0343RSZZ	578 685 0686	6- 7	BV	RB	N	E
DUNTK0347RSZZ	578 685 0687	12- 9	AW	FG	N	E
DUNTK0353QSA3	578 685 0691	2- 12	BF	GN	N	E
DUNTK0353QSA4	578 685 0692	2- 12	BF	GN	N	E
DUNTK0353QSA6	578 685 0693	2- 12	BF	GN	N	E
DUNTW0327RS11	578 685 0690	9-901	BV	RB	N	E
DUNTW0327RSZZ	578 685 0689	9-901	BV	RB	N	E
DWIR-0466CSZZ	572 427 1070	15- 7	BG	HC		B
【G】						
GCAB-0015QSE1	578 107 0576	1- 23	AU	EZ	N	D
GCAB-0067QSZZ	578 107 0569	2- 15	AX	FG	N	D
GCAB-0068QSZZ	578 107 0570	1- 10	AV	FG	N	D
GCAB-0069QSZZ	578 107 0571	12- 2	AT	EZ	N	D
GCAB-0070QSZZ	578 107 0572	1- 18	BA	FX	N	D
GCAB-0071QSZZ	578 107 0573	1- 15	AV	FG	N	D
GCAB-0071QSZZ	578 107 0560	1- 15	AV	FG	N	D
GCAB-0073QSZZ	578 107 0574	2- 2	AW	FG	N	D
GCAB-0079QSZZ	578 107 0575	1- 27	AP	EQ	N	D
GCASP0003QSE2	578 108 0134	16- 18	BD	GN	N	D
GCOV-0019QSZZ	578 110 0240	18- 8	AT	EZ	N	D



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			Ex.	Ja.		
GCOV-0020QSE1	578 110 0241	18- 1	AQ	EQ	N	D
GCOV-0021QSE2	578 110 0242	18- 24	AP	EQ	N	D
GCOV-0047QSZZ	578 110 0246	1- 6	AM	EG	N	D
GCOV-0048QSZZ	578 110 0247	1- 13	AM	EG	N	D
GCOV-0049QSZ1	578 110 0234	14- 2	AK	EB	N	C
GCOV-0050QSZZ	578 110 0249	2- 14	AN	EG	N	D
GCOVH0010QSE5	578 110 0233	1- 1	BD	GJ	N	D
GCOVH0011QSE1	578 110 0250	1- 22	AM	EG	N	D
GDAi-0002QSE1	578 112 0007	11- 12	BF	GN	N	C
"	578 112 0007	12- 22	BF	GN	N	C
GDOR-0004QSZZ	578 113 0015	3- 1	AQ	EQ	N	D
GGAD-0001QSZZ	572 118 0004	18- 2	AE	DJ		C
GGAD-0002QSZZ	572 118 0005	18- 3	AE	DS		C
GLEGG0064FCZZ	572 123 0072	11- 41	AC	DJ		C
"	572 123 0072	18- 19	AC	DJ		C
{ J }						
JBTN-0063QSZZ	578 170 0230	2- 11	AE	DJ	N	C
JBTN-0064QSZZ	578 170 0231	2- 6	AF	DS	N	C
JBTN-0065QSZZ	578 170 0232	2- 5	AE	DJ	N	C
JBTN-0066QSZZ	578 170 0233	2- 4	AH	DX	N	C
JKNBZ0008QSZZ	578 174 0159	3- 32	AE	DJ	N	C
JKNBZ0010QSZZ	578 174 0158	6- 41	AD	DJ	N	C
{ L }						
LANGT0003QSZZ	578 200 0200	6- 51	AC	DJ		C
LANGT0014QSZZ	578 200 0206	12- 34	AF	DS	N	C
LBNDJ0013FCZ1	572 201 0118	14- 74	AE	DJ		C
"	572 201 0118	6- 54	AE	DJ		C
LBNDJ0043FCZ1	572 201 0125	4- 24	AA	DJ		C
LBOSZ1031FCZZ	572 202 0270	11- 14	AC	DJ		C
"	572 202 0270	19- 5	AC	DJ		C
LBOSZ1508FCZZ	572 202 0378	13- 9	AG	DX		C
"	572 202 0378	19- 23	AG	DX		C
"	572 202 0378	6- 33	AG	DX		C
LBOSZ1510FCZZ	572 202 0373	13- 5	AF	DX		C
"	572 202 0373	19- 19	AF	DX		C
LBRC-0012QSZZ	578 203 0054	11- 72	AD	DJ	N	C
LBRCR0011QSZZ	578 203 0051	11- 69	AD	DJ	N	C
"	578 203 0051	19- 61	AD	DJ	N	C
LBSHZ0006QSZZ	578 204 0017	13- 62	AC	DJ		C
LBSHZ0303FCZZ	572 204 0302	13- 10	AC	DJ		C
"	572 204 0302	3- 22	AC	DJ		C
LDAiU0030QSZZ	578 210 0098	4- 92	AS	EQ	N	C
LFiX-0007QSZ1	572 211 0693	7- 31	AE	DJ		C
LFiX-0016FCZZ	572 211 0172	12- 53	AD	DJ		C
LFiX-0023QSZZ	578 211 0090	4- 83	AC	DJ	N	C
LFiX-0284FCZZ	572 211 0176	5- 11	AC	DD		C
LFRM-0016QSZZ	578 213 0445	3- 10	AQ	EQ		C
LFRM-0020QSE3	578 213 0479	13- 33	AT	EZ	N	C
LFRM-0024QSZZ	578 213 0343	6- 46	BC	GJ		C
LFRM-0025QSZZ	572 213 2268	12- 23	AH	DX		C
LFRM-0026QSZZ	578 213 0452	12- 25	AN	EG	N	C
LFRM-0027QSZZ	578 213 0482	14- 39	AS	EQ	N	C
LFRM-0031QSE3	578 213 0453	19- 38	AU	EZ		C
LFRM-0036QSZZ	578 213 0250	9- 40	AT	EZ		D
LFRM-0067QSZZ	578 213 0480	12- 14	AK	EB	N	C
LFRM-0068QSZZ	578 213 0481	12- 16	AQ	EQ	N	C
LHLDRO072QSZZ	578 214 0204	8- 34	AC	DJ	N	C
LHLDRO095QSZZ	578 214 0265	11- 67	AD	DJ	N	C
"	578 214 0265	19- 58	AD	DJ	N	C
LHLDW0086QSZZ	578 214 0211	14- 72	AB	DJ		C
LHLDW1226FCZZ	572 214 1450	16- 3	AB	DJ		C
"	572 214 1450	17- 10	AB	DJ		C
LHLDW3142KCZZ	574 214 0010	18- 41	AC	DD		C
LHLDZ0001YSZZ	572 214 1908	8- 30	AD	DJ	N	C
LHLDZ0013QSZZ	572 214 1869	5- 5	AD	DJ		C
LHLDZ0030QSZZ	572 214 1910	15- 6	AD	DJ	N	C
LHLDZ0031QSZZ	578 214 0268	15- 13	AH	EQ	N	C
LHLDZ0032QSZZ	572 214 1906	15- 10	AD	DJ	N	C
LHLDZ0033QSZZ	572 214 1931	3- 15	AF	DS		C
LHLDZ0034QSZZ	572 214 1897	9- 14	AF	DS		C
LHLDZ0038QSZZ	572 214 1962	6- 15	AH	DX		C
LHLDZ0039QSZZ	572 214 1912	6- 21	AE	DJ	N	C
LHLDZ0040QSZZ	578 214 0185	14- 16	AS	EQ	N	C
LHLDZ0044QSZZ	578 214 0279	5- 1	AN	EG	N	C
LHLDZ0045QSZZ	572 214 1907	7- 12	AD	DJ		C
LHLDZ0098QSZZ	578 214 0275	7- 12	AD	DJ		C
LHLDZ0099QSZZ	578 214 0272	6- 62	AC	DJ	N	C
LHLDZ0100QSZZ	578 214 0280	11- 37	AD	DJ	N	C
LHLDZ0104QSZZ	578 214 0281	4- 25	AD	DJ	N	C
LHLDZ0109QSZZ	578 214 0277	4- 4	AD	DJ	N	C
LHLDZ0110QSZZ	578 214 0282	12-120	AG	DX	N	C

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			Ex.	Ja.		
LPFTF0004QSZZ	578 217 0006	4- 62	AB	DJ	N	C
LPiNS0181FCZZ	572 218 0093	19- 22	AA	DD		C
LPiNS0258FCZZ	572 218 0329	14- 32	AA	DD		C
LPiNS0300FCZZ	572 218 0424	6- 47	AD	DJ		C
LPiNS0301FCZZ	572 218 0426	6- 47	AD	DJ		C
LPLTM0001YSZZ	572 221 7078	8- 28	AN	EQ	N	C
LPLTM0002YSZZ	578 221 0776	8- 27	AP	EQ	N	C
LPLTM0048QSZZ	572 221 7039	10- 11	AF	DS		C
LPLTM0050QSZZ	572 221 7040	9- 17	AM	EG		C
LPLTM0053QSZZ	572 221 7143	16- 1	AS	EQ		C
LPLTM0065QSZZ	572 221 7048	11- 6	AL	EB		C
LPLTM0067QSZZ	572 221 7050	6- 22	AC	DJ	N	C
LPLTM0082QSZZ	578 221 0780	12- 12	AF	EQ	N	C
LPLTM0090QSZZ	572 221 7057	3- 8	AE	DS		C
LPLTM0091QSZZ	572 221 7058	3- 6	AE	DS		C
LPLTM0092QSZZ	572 221 7059	3- 4	AF	DS	N	C
LPLTM0099QSZZ	578 221 0766	12- 24	AK	DX	N	C
LPLTM0100QSZZ	578 221 0528	14- 14	AD	DJ	N	C
LPLTM0102QSZZ	572 221 7134	3- 26	AD	DJ		C
LPLTM0112QSZZ	572 221 7022	11- 48	AE	DJ		C
LPLTM0113QSZZ	572 221 7023	18- 25	AH	DX		C
LPLTM0116QSZZ	572 221 7025	18- 5	AQ	EQ		C
LPLTM0120QSZZ	572 221 7149	19- 55	AF	DS		C
LPLTM0125QSZZ	572 221 7117	11- 52	AD	DJ		C
LPLTM0135QSZZ	572 221 7155	18- 30	AF	DS		C
LPLTM0137QSZZ	572 221 7157	19- 41	AD	DJ		C
LPLTM0138QSZZ	572 221 7158	18- 31	AD	DJ		C
LPLTM0149QSZZ	578 221 0555	6- 55	AD	DJ		C
LPLTM0306QSZZ	578 221 0786	12- 61	AL	EB	N	C
LPLTM0307QSZZ	578 221 0787	12- 40	AL	EB	N	C
LPLTM0308QSZZ	578 221 0788	12- 21	AL	EB	N	C
LPLTM0309QSZZ	578 221 0789	12- 41	AE	DS	N	C
LPLTM0310QSZZ	578 221 0790	12- 60	AP	EQ	N	C
LPLTM0314QSZZ	578 221 0791	4- 80	AC	DJ	N	C
LPLTM0347QSZZ	578 221 0793	12- 31	AG	DS	N	C
LPLTM2642FCG2	578 221 0760	16- 4	AD	DJ		C
LPLTM6022FCZZ	572 221 7946	8- 36	AC	DJ		C
LPLTP0051QSZZ	572 221 7093	9- 23	AD	DJ		C
LPLTP0056QSZZ	578 221 0705	13- 3	AD	DJ		C
LPLTP0060QSZZ	578 221 0756	9- 41	AM	EG	N	C
LPLTP0348QSZZ	578 221 0779	11- 29	AC	DJ	N	C
LRALM0006QSZZ	572 223 0232	4- 47	AG	DS		C
LRALM0007QSZZ	578 223 0026	4- 27	AG	DS		C
LRALP0004QSZZ	578 223 0025	3- 2	AH	DX	N	C
LRALP0014QSEZ	578 223 0027	11- 27	AM	EQ	N	C
LSOU-0009QSE2	578 226 0247	13- 45	AS	EQ	N	D
LSOU-0010QSE1	578 226 0248	13- 48	AR	EQ	N	D
LSOU-0011QSE1	578 226 0249	13- 47	AL	EB	N	D
LSOU-0036QSZZ	578 226 0250	12- 1	BA	FX	N	D
LSTPP0003QSZZ	578 230 0048	14- 54	AC	DJ		C
LSTPP0011QSZZ	578 230 0043	13- 61	AC	DJ		C
LSTPP0014QSZZ	578 230 0052	6- 60	AC	DJ		C
LSTPP0116FCZZ	572 230 0157	9- 7	AA	DD		C
LSTPP0161FCZZ	572 230 0062	16- 17	AB	DD		C
LSUPP0083FCZZ	572 233 0113	18- 4	AB	DJ		C
LX-BZ0004QSZZ	572 970 1917	4- 26	AB	DD		C
LX-BZ0013QSZZ	572 970 1962	9- 30	AC	DD		C
LX-BZ0015QSZZ	572 970 1957	17- 9	AF	DS		C
LX-BZ0020QSZZ	578 970 0214	6- 56	AB	DD		C
LX-BZ0027QSZZ	578 970 0219	8- 3	AD	DJ	N	C
LX-BZ0031QSZZ	578 970 0232	12- 33	AC	DD		C
LX-BZ0039FCZZ	572 970 0411	4- 64	AB	DD		C
LX-BZ0039QSZZ	578 970 0242	12- 42	AB	DD	N	C
LX-BZ0049FCZZ	572 970 0353	4- 42	AB	DD		C
LX-BZ0324FCZZ	572 970 0197	4- 41	AA	DD		C
LX-BZ0335FCZZ	572 970 0245	5- 8	AA	DD		C
LX-BZ0700FCZZ	572 970 1422	12- 28	AA	DD	N	C
LX-BZ0750FCZZ	572 970 1527	1- 14	AB	DD		C
"	572 970 1527	12- 35	AB	DD		C
"	572 970 1527	2- 1	AB	DD		C
LX-BZ0759FCZZ	572 970 1534	1- 25	AB	DD		C
LX-BZ3008SC0S	572 970 1408	1- 53	AA	DD		C
LX-RZ0001QSZZ	572 990 0487	7- 14	AB	DD		C
LX-WZ0001GCZZ	578 990 0063	5- 17	AB	DD		C
LX-WZ0001QSZZ	572 990 0467	9- 55	AC	DD		C
LX-WZ0002QSZZ	572 990 0486	10- 13	AB	DD		C
LX-WZ0017GCZZ	578 990 0070	4- 35	AC	DD		C
LX-WZ0198FCZZ	572 990 0042	6- 66	AA	DD		C
LX-WZ0313FCZZ	572 990 0227	9- 48	AA	DD		C
LX-WZ0314FCZZ	572 990 0230	10- 37	AA	DD		C
"	572 990 0230	19- 42	AA	DD		C

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			Ex.	Ja.		
LX-WZ0329FCZZ	572 990 0410	7- 13	AB	DD		C
LX-WZ1003HCZZ	509 990 5001	6- 67	AA	DD		C
LX-WZ7021SCZZ	569 990 0002	9- 58	AA	DD		C
【M】						
MARMP0005QSEZ	578 240 0104	13- 51	AD	DJ	N	C
MARMP0006QSZZ	572 240 0354	13- 20	AD	DJ		C
MARMP0008QSZZ	572 240 0350	13- 2	AH	DX		C
MARMP0009QSZZ	572 240 0351	13- 16	AF	DS		C
MARMP0015QSZZ	572 240 0341	18- 21	AD	DJ		C
MARMP0041QSZZ	578 240 0084	13- 19	AE	DS		C
MARMP0229FCZZ	572 240 0274	19- 2	AE	DS		C
MCAMP0001QSZZ	572 241 0122	13- 22	AF	DS		C
MLEVP0017QSZZ	578 248 0212	9- 36	AF	DS		C
MLEVP0018QSZZ	578 248 0213	9- 33	AF	DS		C
MLEVP0019QSZZ	578 248 0214	9- 34	AE	DJ		C
MLEVP0020QSZZ	578 248 0215	9- 35	AE	DJ		C
MLEVP0023QSZZ	572 248 1141	11- 25	AE	DS		C
MLEVP0024QSZZ	572 248 1142	11- 32	AF	DS		C
MLEVP0026QSZZ	572 248 1190	9- 42	AE	DJ	N	C
MLEVP0039QSZZ	578 248 0257	19- 35	AE	DS		C
MLEVP0044QSZZ	572 248 1160	11- 42	AE	DS		C
MLEVP0046QSZZ	572 248 1162	19- 36	AD	DJ		C
MLEVP0106QSZZ	578 248 0265	14- 28	AD	DJ	N	C
MLOKZ0001QSZZ	572 252 0020	18- 12	AC	DJ		C
MSL i-0138FCZZ	572 256 0169	4- 85	AC	DJ		E
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572 256 0169						
MSPRC0024QSZZ	572 258 3129	6- 4	AA	DJ		C
MSPRC0040QSZZ	572 258 3140	4- 28	AA	DJ		C
MSPRC0045QSZZ	572 258 3142	7- 26	AB	DJ		C
MSPRC0081QSZZ	572 258 3238	10- 34	AB	DJ		C
MSPRC0082QSZZ	578 258 0609	3- 16	AC	DJ		C
MSPRC0083QSZZ	572 258 3311	3- 14	AD	DJ		C
MSPRC0084QSZZ	572 258 3312	3- 13	AD	DJ		C
MSPRC0085QSZZ	572 258 3242	3- 9	AE	DJ		C
MSPRC0106QSZZ	572 258 3247	6- 35	AF	DS		C
MSPRC0141QSZZ	572 258 3248	18- 11	AB	DJ		C
MSPRC0152QSZZ	572 258 3303	16- 15	AB	DJ		C
MSPRC0157QSZZ	572 258 3324	19- 43	AC	DJ		C
MSPRC0161QSZZ	578 258 0554	11- 15	AF	DS		C
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578 258 0554						
MSPRC0278QSZZ	578 258 0741	6- 26	AC	DJ		C
MSPRC0301QSZZ	578 258 0794	11- 30	AD	DJ	N	C
MSPRC0319QSZZ	578 258 0795	3- 31	AB	DJ	N	C
MSPRC0334QSZZ	578 258 0793	16- 11	AD	DJ	N	C
MSPRC1145FCZZ	572 258 1272	16- 16	AA	DD		C
MSPRC1315FCZZ	572 258 2131	12- 114	AD	DJ		C
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572 258 2131						
〃						
572 258 2131						
MSPRC1316FCZZ	572 258 2132	13- 23	AE	DS		C
MSPRC1318FCZZ	572 258 2134	10- 9	AA	DJ		C
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572 258 2134						
MSPRC2132FCZZ	572 258 2195	10- 23	AA	DJ		C
MSPRC2175FCZZ	572 258 2170	13- 32	AA	DJ		C
MSPRD0092QSZZ	572 258 3287	13- 26	AE	DJ		C
MSPRD0102QSZZ	572 258 3250	6- 14	AC	DJ		C
MSPRD0103QSZZ	572 258 3251	6- 13	AC	DJ		C
MSPRD0104QSZZ	572 258 3252	6- 12	AC	DJ		C
MSPRD0117QSZZ	572 258 3253	9- 43	AB	DJ	N	C
MSPRD0118QSZZ	578 258 0544	9- 44	AB	DJ	N	C
MSPRD0121QSZZ	572 258 3307	9- 53	AB	DJ		C
MSPRD0122QSZZ	572 258 3308	9- 52	AB	DJ		C
MSPRD0134QSZZ	572 258 3334	19- 27	AC	DJ		C
MSPRD0135QSZZ	572 258 3261	18- 18	AD	DJ		C
MSPRD0139QSZZ	572 258 3262	6- 30	AB	DJ		C
MSPRD0143QSZZ	578 258 0545	14- 30	AF	DS		C
MSPRD0144QSZZ	572 258 3265	14- 52	AC	DJ		C
MSPRD0156QSZZ	572 258 3318	19- 52	AB	DJ		C
MSPRD0233QSZZ	578 258 0715	11- 35	AC	DJ		C
MSPRD0298QSZZ	578 258 0796	6- 61	AD	DJ	N	C
MSPRD0300QSZZ	578 258 0797	11- 38	AD	DJ	N	C
MSPRD0302QSZZ	578 258 0798	13- 65	AC	DJ	N	C
MSPRK0001YSZZ	572 258 3266	8- 33	AB	DJ	N	C
MSPRP0087QSZZ	572 258 3267	9- 31	AC	DJ		C
MSPRP2825FCZZ	572 258 3919	4- 86	AC	DJ		C
MSPRT0086QSZZ	572 258 3274	9- 18	AB	DJ	N	C
MSPRT0091QSZZ	572 258 3276	13- 12	AC	DJ		C
MSPRT0107QSZZ	572 258 3278	14- 55	AC	DJ		C
MSPRT0128QSZZ	572 258 3280	19- 3	AB	DJ		C
MSPRT0129QSZZ	572 258 3300	18- 23	AC	DJ		C
MSPRT0130QSZZ	572 258 3322	19- 31	AB	DJ		C
MSPRT0141GCA1	578 258 0413	3- 27	AB	DJ		C

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			Ex.	Ja.		
MSPRT0147QSZZ	572 258 3301	13- 36	AC	DJ		C
MSPRT0229GCAZ	578 258 0416	14- 48	AC	DJ		C
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578 258 0416						
MSPRT0303QSZZ	578 258 0799	9- 32	AD	DJ	N	C
MSPRT0304QSZZ	578 258 0800	9- 18	AD	DJ	N	C
MSPRT0513FCZZ	572 258 2240	15- 8	AA	DJ		C
【N】						
NBLTT0007QSZZ	572 271 0603	12- 36	AH	DX		B
NBLTT0008QSZZ	572 271 0608	12- 111	AG	DX		C
NBLTT0009QSZZ	572 271 0609	12- 110	AG	DX		C
NBLTT0037QSZZ	578 271 0080	4- 37	AL	EB	N	B
NBRGC0018QSZZ	578 272 0130	6- 38	AD	DJ		C
NBRGC0019QSZZ	578 272 0131	14- 33	AD	DJ		C
NBRGC0020QSZZ	578 272 0132	8- 17	AH	DX	N	C
NBRGC0021QSZZ	578 272 0133	8- 21	AD	DJ	N	C
NBRGC0188FCZZ	572 272 0243	19- 17	AB	DD		C
NBRGC0529FCZZ	572 272 0498	12- 104	AD	DJ		C
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572 272 0498						
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572 272 0498						
NBRGM0501FCZZ	572 272 0461	19- 9	AB	DJ		C
NBRGP0007QSZZ	572 272 0677	11- 19	AD	DJ	N	C
NBRGP0011QSZZ	578 272 0138	4- 46	AC	DJ		C
NBRGP0012QSZZ	578 272 0139	4- 39	AC	DJ		C
NBRGP0260FCZZ	572 272 0433	9- 28	AD	DS		C
NBRGP0299FCZZ	572 272 0013	7- 18	AC	DJ		C
NBRGP0567FCZZ	572 272 0558	9- 8	AG	DX		C
NBRGY2122SCZZ	595 272 0047	14- 15	AB	DD		B
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595 272 0047						
NCPL-0003QSZZ	572 274 0044	7- 9	AC	DJ		C
NCPL-0004FCZZ	572 274 0003	10- 24	AB	DD		C
NCPL-0007QSZZ	578 274 0006	6- 3	AC	DJ	N	C
NCPL-0012QSZZ	578 274 0007	13- 64	AD	DJ	N	C
NFANP0009QSZZ	578 277 0026	14- 43	AT	EZ	N	B
NFANP0010QSZZ	578 277 0027	12- 6	AS	EQ	N	C
NGERH0001YSZZ	572 281 1818	8- 20	AD	DJ	N	C
NGERH0002YSZZ	572 281 1819	8- 18	AD	DJ	N	C
NGERH0007QSZZ	572 281 1748	10- 26	AH	DX		C
NGERH0008QSZZ	578 281 0389	10- 28	AL	EB		C
NGERH0009QSZZ	572 281 1750	10- 20	AD	DJ		C
NGERH0010QSZZ	572 281 1751	10- 19	AD	DJ		C
NGERH0011QSZZ	572 281 1752	10- 22	AD	DJ	N	C
NGERH0012QSZZ	572 281 1753	10- 30	AE	DS		C
NGERH0013QSZZ	572 281 1754	10- 32	AG	DX		C
NGERH0014QSZZ	572 281 1755	10- 21	AD	DJ		C
NGERH0016QSZZ	572 281 1757	10- 33	AD	DJ		C
NGERH0036QSZZ	572 281 1773	7- 28	AC	DJ		C
NGERH0037QSZZ	572 281 1774	7- 30	AC	DJ		C
NGERH0038QSZZ	572 281 1775	7- 29	AC	DJ		C
NGERH0039QSZZ	572 281 1776	7- 25	AE	DS		C
NGERH0041QSZZ	572 281 1801	19- 28	AF	DS		C
NGERH0052QSZZ	572 281 1823	10- 25	AE	DJ		C
NGERH0053QSZZ	572 281 1824	10- 14	AD	DJ		C
NGERH0054QSZZ	572 281 1825	10- 38	AD	DJ		C
NGERH0055QSZZ	572 281 1826	10- 35	AE	DJ		C
NGERH0056QSZZ	572 281 1827	10- 36	AE	DJ		C
NGERH0057QSZZ	572 281 1828	10- 27	AE	DJ		C
NGERH0058QSZZ	572 281 1829	10- 31	AF	DS		C
NGERH0059QSZZ	572 281 1830	10- 29	AD	DJ		C
NGERH0060QSZZ	572 281 1809	11- 17	AH	DX	N	C
NGERH0061QSZZ	572 281 1810	13- 15	AD	DJ		C
NGERH0062QSZZ	572 281 1831	6- 37	AK	DX		C
NGERH0063QSZZ	572 281 1811	14- 31	AD	DJ		C
NGERH0064QSZZ	572 281 1836	12- 106	AD	DJ		C
NGERH0065QSZZ	572 281 1837	12- 105	AC	DJ		C
NGERH0066QSZZ	572 281 1838	12- 116	AD	DJ		C
NGERH0067QSZZ	572 281 1812	14- 56	AD	DJ		C
NGERH0068QSZZ	578 281 0294	14- 57	AD	DJ		C
NGERH0070QSZZ	572 281 1814	14- 35	AC	DJ		C
NGERH0074QSZZ	572 281 1839	3- 25	AD	DJ	N	C
NGERH0075QSZZ	572 281 1847	12- 108	AC	DJ		C
NGERH0078QSZZ	572 281 1817	11- 44	AE	DJ	N	C
NGERH0145QSZZ	578 281 0386	8- 23	AD	DJ	N	C
NGERH0165QSZZ	578 281 0397	4- 34	AE	DJ	N	C
NGERH0193FCZZ	572 281 0318	13- 46	AB	DD		C
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572 281 0318						
NGERH0495FCZZ	572 281 0665	13- 14	AC	DD		C
NGERH0540FCZZ	578 281 0293	9- 13	AD	DJ		B
NGERH0972FCZZ	572 281 1108	13- 27	AB	DJ		C
NGERH0990FCZZ	572 281 1125	19- 29	AB	DJ		C
NGERH1132FCZZ	572 281 1349	19- 8	AH	DX		C
NGERH1169FCZZ	572 281 1385	11- 45	AF	DS		C

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NGERH1169FCZZ	572 281 1385	18- 13	AF	DS		C
NGERH1207FCZZ	572 281 1388	19- 1	AF	DS		C
NKOM-0001QSZZ	572 273 0019	6- 29	AD	DJ		C
NKOM-0002QSZZ	572 273 0020	14- 9	AC	DJ	N	C
NKOM-0009QSZZ	578 273 0007	11- 74	AC	DJ	N	C
NPLYZ0006QSZZ	572 284 0701	4- 19	AD	DJ		C
NPLYZ0008QSZZ	572 284 0720	12-112	AC	DJ		C
NPLYZ0011QSZZ	572 284 0721	12-109	AC	DJ		C
NPLYZ0016QSZZ	578 284 0068	4- 18	AF	DS		C
NPLYZ0017QSZZ	578 284 0069	5- 4	AE	DS		C
NPLYZ0030QSZZ	578 284 0075	14- 31	AE	DJ	N	C
NPLYZ0031QSZZ	578 284 0076	4- 43	AL	EB	N	C
NPLYZ0032QSZZ	578 284 0077	4- 40	AK	DX	N	C
NROLi0030QSZZ	572 287 1890	9- 11	BC	GJ		C
NROLM0071QSZZ	578 287 0307	8- 26	AZ	FX	N	C
NROLM0103QSZZ	578 287 0401	14- 6	AQ	EQ	N	C
NROLP0032QSZZ	578 287 0384	6- 40	AT	EZ		C
NROLP0034QSZZ	572 287 1908	14- 8	AD	DJ	N	C
NROLP0036QSZZ	572 287 1915	3- 21	AP	EQ	N	C
NROLP0038QSZZ	572 287 1900	14- 38	AP	EQ		C
NROLP0044QSZZ	578 287 0386	19- 13	AQ	EQ		C
NROLP0072QSZZ	578 287 0395	8- 15	AP	EQ	N	C
NROLP0104QSZZ	578 287 0402	14- 71	AC	DJ	N	C
NROLP1060FCZZ	572 287 1396	18- 22	AF	DS		C
NROLP1122FCZZ	572 287 1526	14- 46	AF	DS		C
"/	572 287 1526	3- 28	AF	DS		C
NROLR0031QSZZ	572 287 1916	9- 27	BC	GJ		C
NROLR0922FCZZ	578 287 0400	13- 13	AR	EQ	N	C
NROLR1267FCZZ	578 287 0398	13- 17	AH	DX	N	C
NSFTZ0017QSZZ	572 290 2470	13- 21	AG	DS		C
NSFTZ0019QSZZ	572 290 2472	7- 22	AE	DJ	N	C
NSFTZ0020QSZZ	572 290 2473	7- 19	AL	EB		C
NSFTZ0021QSZZ	578 290 0179	6- 28	AL	EB		C
NSFTZ0064QSZZ	578 290 0221	11- 75	AD	DJ	N	C
NSFTZ0066QSZZ	578 290 0228	11- 66	AK	DX	N	C
NSFTZ0067QSZZ	578 290 0229	19- 57	AK	DX	N	C
NSFTZ0071QSZZ	578 290 0233	4- 44	AK	EB	N	C
【P】						
PBOX-0001YS13	578 307 0096	8- 14	AM	EG	N	C
PBRSR0004QSZZ	578 310 0061	9- 50	AD	DJ	N	C
PBRSR0005QSZZ	572 310 0315	14- 11	AK	EB		B
PBRSR0009QSZZ	578 310 0063	14- 11	AH	DX	N	B
PCAPH0009QSZZ	572 312 0053	7- 21	AC	DJ	N	C
PCASZ0010QSZZ	578 315 0058	4- 7	AL	EB		C
PCASZ0013QSZZ	578 315 0060	15- 12	AP	EQ	N	C
PCLR-0010QSZZ	578 318 0039	11- 65	AC	DJ	N	C
PCLR-0011QSZZ	578 318 0040	11- 71	AC	DJ	N	C
"/	578 318 0040	19- 60	AC	DJ	N	C
PCOVP0029QSZZ	578 323 0287	9- 5	AT	EZ	N	C
PCOVP0033QSZZ	578 323 0282	11- 26	AF	DJ	N	C
PCOVP0072QS12	578 323 0252	8- 11	AH	DX	N	D
PCOVP0080QSZZ	578 323 0203	8- 38	AE	DS	N	C
PCOVP0091QSZZ	578 323 0280	11- 60	AC	DJ	N	C
PCOVP0093QSZZ	578 323 0288	7- 32	AE	DS	N	C
PCOVP0097QSZZ	578 323 0283	11- 64	AH	DX	N	C
PCOVP0098QSZZ	578 323 0284	13- 1	AN	EG	N	C
PCUSF0334FCZZ	572 326 0296	4- 87	AP	EQ		C
PCUSS0009QSZZ	572 326 0377	5- 10	AA	DJ		C
PCUSS0023QSZZ	578 326 0029	1- 2	AV	FG		C
PCUSS0201FCZZ	572 326 0103	5- 14	AA	DD		C
PCUSU0203FCZZ	572 326 0021	4- 88	AE	DS		C
PDUC-0003QSZZ	578 332 0003	14- 44	AG	DX		C
PDUC-0006QSZZ	578 332 0006	12- 77	AF	DS	N	C
PFiLZ0004QSZZ	572 337 0363	14- 40	AM	EG		B
PFiLZ0008QSZZ	578 337 0023	14- 40	AL	EB		B
PFiLZ0012QSZZ	578 337 0099	2- 9	AC	DJ	N	C
PFTA-0018QSZZ	578 344 0030	11- 31	AE	DS	N	C
PGiDH0118QSZZ	578 345 0459	15- 2	AK	DX	N	C
PGiDM0032QSZZ	572 345 3239	15- 16	AE	DS	N	C
PGiDM0034QSZZ	578 345 0435	9- 20	AL	EB	N	C
PGiDM0040QSZZ	578 345 0460	14- 47	AK	DX	N	C
PGiDM0048QSE2	578 345 0451	18- 10	BB	FX	N	C
PGiDM0049QSE2	578 345 0452	18- 9	BA	FX	N	C
PGiDM0062QSZZ	578 345 0447	14- 45	AP	EQ	N	C
PGiDM0063QSZZ	578 345 0286	14- 47	AP	EQ		C
PGiDM0088QSZZ	578 345 0333	8- 1	AP	EQ	N	D
PGiDM0089QSZZ	578 345 0334	8- 4	AQ	EQ	N	D
PGiDM0104QSZZ	578 345 0456	10- 1	AK	DX	N	C
PGiDM0110QSZZ	578 345 0457	1- 19	AG	DX	N	C
PGiDM0111QSZZ	578 345 0458	1- 21	AG	DX	N	C
PGiDM0117QSZZ	578 345 0450	13- 60	AH	DX	N	C

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PGLSP0003QSZZ	572 348 0134	1- 8	BA	FX		B
PGUMM0013QSZZ	578 352 0053	11- 70	AG	DX	N	C
"/	578 352 0053	19- 62	AG	DX	N	C
PGUMS0002QSZZ	572 352 0307	4- 33	AL	EB		C
PGUMS0004QSZZ	572 352 0308	4- 21	AA	DJ		C
PHOG-1023CCZZ	505 355 5001	12- 18	AB	DD		C
PMiR-0164FCZZ	572 374 0221	4- 89	AP	EQ		B
PMLT-0002YSZ1	578 375 0185	8- 12	AC	DJ	N	C
PMLT-0005YSZZ	572 375 0893	8- 13	AB	DJ	N	C
PMLT-0006YSZZ	572 375 0894	8- 16	AB	DJ	N	C
PMLT-0018QSZZ	572 375 0882	7- 20	AC	DJ		C
PMLT-0027QSZZ	572 375 0897	14- 41	AC	DJ		C
PMLT-0033QSZZ	572 375 0913	4- 56	AC	DJ		C
PMLT-0039QSZZ	578 375 0145	1- 41	AC	DJ		C
PMLT-0084QSZZ	578 375 0184	5- 16	AB	DJ	N	C
PPiPP0005QSZZ	572 395 0210	7- 24	AM	EG	N	C
PPiPP0006QSZZ	572 395 0211	11- 16	AD	DJ	N	C
PPiPP0007QSZZ	572 395 0209	19- 7	AD	DJ		C
PPiPP0009QSZZ	572 395 0215	13- 24	AD	DJ		C
PPiPP0011QSZZ	572 395 0218	19- 45	AC	DJ		C
PPiPP0109FCZZ	572 395 0039	13- 6	AB	DD		C
"/	572 395 0039	19- 20	AB	DD		C
PPiPP0174FCZZ	572 395 0168	6- 34	AC	DJ		C
PREFL0005QSZZ	578 432 0005	4- 90	AH	DX	N	C
PREFL0006QSZZ	578 432 0006	4- 97	AK	DX	N	C
PRNGF0106FCZZ	578 399 0031	7- 16	AC	DJ		C
PRNGP0019FCZZ	572 399 0026	18- 14	AA	DD		C
PSEL-0001YSZ1	578 400 0204	8- 42	AE	DS	N	C
PSEL-0063QSZZ	578 400 0206	8- 37	AA	DJ	N	C
PSEL-0065QSZZ	578 400 0209	8- 5	AA	DJ	N	C
PSEL-0066QSZZ	578 400 0210	8- 6	AC	DJ	N	C
PSEL-0067QSZZ	578 400 0248	8- 7	AG	DX	N	C
PSEL-0074QSZZ	578 400 0212	8- 43	AC	DJ		C
PSEL-0105QSZZ	578 400 0235	8- 8	AA	DJ	N	C
PSEL-0114QSZZ	578 400 0233	8- 48	AC	DJ		C
PSEL-0115QSZZ	578 400 0234	8- 49	AD	DJ		C
PSEL-0129QSZZ	578 400 0239	7- 6	AF	DS		C
PSEL-0130QSZZ	578 400 0240	7- 5	AF	DS		C
PSHEP0035YSZZ	555 403 0001	8- 24	AB	DJ	N	C
PSHEP0050QSZZ	578 403 0505	15- 3	AD	DJ	N	C
PSHEP0051QSZZ	572 403 4386	15- 5	AB	DJ	N	C
PSHEP0052QSZZ	572 403 4387	15- 9	AB	DJ	N	C
PSHEP0135QSZZ	572 403 5212	7- 35	AB	DJ		C
PSHEP0262QSZZ	578 403 0644	8- 9	AC	DJ	N	C
PSHEP0324QSZZ	578 403 0713	8- 47	AC	DJ		C
PSHEZ0056QSZZ	572 403 4449	6- 49	AC	DJ		C
PSHEZ0065QSZZ	572 403 4467	12-113	AB	DJ		C
PSHEZ0099QSZZ	572 403 4444	13- 35	AC	DJ		C
PSHEZ0105QSZZ	572 403 4446	9- 46	AC	DJ		C
PSHEZ0109QSZZ	572 403 4448	12- 73	AC	DJ		C
"/	572 403 4448	4- 53	AC	DJ		C
PSHEZ0125QSZZ	572 403 4459	15- 19	AE	DS	N	C
PSHEZ0133QSZZ	572 403 4518	11- 23	AD	DJ		C
PSHEZ0135QSZZ	572 403 4519	12- 64	AC	DJ		C
PSHEZ0152QSZZ	572 403 4537	4- 58	AD	DJ		C
PSHEZ0171QSZZ	572 403 4618	18- 40	AD	DJ		C
PSHEZ0172QSZZ	572 403 4619	18- 33	AB	DJ		C
PSHEZ0173QSZZ	572 403 4620	18- 34	AB	DJ		C
PSHEZ0186QSZZ	578 403 0531	11- 57	AB	DJ		C
PSHEZ0187QSZZ	578 403 0532	11- 56	AB	DJ		C
PSHEZ0209QSZZ	578 403 0865	4- 60	AB	DJ	N	C
PSHEZ0217QSZZ	578 403 0636	4- 72	AC	DJ		C
PSHEZ0220QSZZ	578 403 0674	1- 9	AK	DX		C
PSHEZ0241QSZZ	578 403 0628	13- 37	AB	DJ		C
PSHEZ0273QSZZ	578 403 0654	4- 71	AB	DJ		C
PSHEZ0378QSZZ	578 403 0803	11- 28	AG	DX		C
PSHEZ0408QSZZ	578 403 0878	12- 69	AC	DJ		C
PSHEZ0410QSZZ	578 403 0859	13- 66	AC	DJ	N	C
PSHEZ0418QSZZ	578 403 0879	4- 63	AC	DJ	N	C
PSHEZ0420QSZZ	578 403 0880	4- 66	AC	DJ	N	C
PSHEZ0421QSZZ	578 403 0881	12- 67	AC	DJ	N	C
PSHEZ0426QSZZ	578 403 0882	4- 67	AB	DJ	N	C
PSHEZ0434QSZZ	578 403 0873	15- 20	AC	DJ	N	C
PSHEZ0435QSZZ	578 403 0874	15- 23	AA	DJ	N	C
PSHEZ0440QSZZ	578 403 0875	4- 52	AC	DJ	N	C
PSHEZ0441QSZZ	578 403 0876	16- 2	AD	DJ	N	C
PSHEZ0446QSZZ	578 403 0877	14- 75	AB	DJ	N	C
PSHT-0004QSZZ	578 407 0022	7- 27	AC	DJ		C
PSPAP0036QSZZ	578 413 0128	8- 46	AC	DJ		C
PSPAZ0011QSZZ	572 413 0682	5- 15	AD	DJ		C
PSPAZ0022QSZZ	578 413 0120	16- 20	AC	DJ		C

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PSPAZ0024QSZZ	578 413 0115	11- 55	AB	DJ	N	C
PSPAZ0040QSZZ	578 413 0132	15- 24	AB	DJ	N	C
PSPAZ0066FCZZ	572 413 0605	7- 23	AC	DJ		C
PSPO-0005QSZZ	572 415 0005	19- 53	AA	DJ		C
PSPO-0007QSZZ	572 415 0006	19- 54	AB	DJ		C
PSPO-0008QSZZ	572 415 0007	18- 35	AC	DJ		C
PSPO-0009QSZZ	572 415 0008	18- 36	AD	DJ		C
PSPO-0010QSZZ	572 415 0009	18- 37	AD	DJ		C
PSPO-0011QSZZ	578 415 0004	18- 38	AD	DJ		C
PSPO-0014QSZZ	572 415 0010	18- 39	AG	DS		C
PTME-0007GCZ1	578 420 0057	9- 19	AG	DS		C
PTME-0012QSZZ	572 420 0304	10- 15	AC	DJ		C
PTME-0014QSZZ	572 420 0310	9- 51	AK	DX		C
PTME-0016QSZZ	572 420 0308	19- 32	AD	DJ		C
PTME-0017QSZZ	572 420 0309	19- 30	AD	DJ		C
PTME-0020GCZ1	572 420 0313	9- 19	AF	DS	N	C
"	572 420 0313	9- 37	AF	DS	N	C
PTME-0032QSZZ	578 420 0058	10- 8	AD	DJ	N	C
PTME-0178FCZZ	572 420 0181	13- 31	AC	DD		C
PTME-0179FCZZ	572 420 0182	13- 30	AC	DD		C
PTPE-0050QSZZ	578 423 0088	4- 79	AA	DJ	N	C
PTPE-0051QSZZ	578 423 0089	4- 70	AC	DJ	N	C
PWIR-0005QSZ1	578 427 0087	4- 3	AQ	EQ		C
PWIR-0006QSZZ	578 427 0088	4- 1	AQ	EQ		C
【Q】						
QACCB421QCPZ	578 500 0057	12- 18	AZ	FQ	N	B
QACCDR614QCPZ	578 500 0055	12- 18	AS	EQ	N	B
QACCR624QCPZ	578 500 0058	12- 18	AW	FG	N	B
QACCR614QCPZ	578 500 0056	12- 18	AW	FG	N	B
QACCR7421QCZZ	572 500 0086	12- 18	AY	FQ		B
QCNCM0999FCZZ	572 510 1004	10- 40	AC	DJ		C
QPLGA0001QCZZ	579 524 0004	12- 18	AN	EQ		B
QPLGA0002QCZZ	572 524 0019	12- 18	AN	EQ		B
QPLGA0003QCZZ	572 524 0007	12- 18	AN	EQ		B
QPLGA0009QCZZ	578 524 0005	12- 18	AS	EQ		B
QPLGA4171CCZZ	571 524 0009	12- 18	AN	EG		B
QSLP-0008QSZZ	572 537 0043	15- 14	AD	DJ	N	C
QSLP-0009QSZZ	572 537 0044	15- 11	AD	DJ	N	C
QSW-B0017QSZZ	572 530 0719	11- 1	AF	DS		B
"	572 530 0719	19- 26	AF	DS		B
QSW-C9293QCZZ	572 530 0678	12- 51	AG	DX		B
QTANN0015FCZZ	572 532 0016	12- 49	AG	DS		C
【R】						
RCORF0006QSZZ	572 615 0074	19- 47	AL	EB		C
RCORF0018QSZZ	578 615 0055	12- 76	AR	EQ		C
"	578 615 0055	4- 59	AR	EQ		C
RCORF0027QSZZ	578 615 0059	12- 74	AN	EG	N	C
RDENC0008QS11	578 685 0694	12- 11	BG	GT	N	E
RDENC0010QS11	578 685 0673	12- 8	BQ	LP	N	E
RDENC0010QS12	578 685 0672	12- 8	BN	LE	N	E
RDENC0010QS13	578 685 0674	12- 8	BN	LE	N	E
RDENC0010QSZZ	578 685 0695	12- 8	BN	LE	N	E
RDTCM0016QSZZ	578 618 0036	8- 31	AZ	FQ	N	B
RDTCM0005QSZ1	578 618 0038	9- 16	AN	EQ	N	B
RHET-0010QSZZ	578 623 0005	11- 36	AQ	EQ	N	B
RHET-0011QSZZ	578 623 0006	19- 50	AQ	EQ	N	E
RINV-0001QSZZ	578 685 0696	4- 82	AX	FG	N	B
RLMPD0023QSZZ	578 626 0055	4- 91	AZ	FQ	N	B
RLMPU0014QSZZ	572 626 0616	9- 6	BA	FX		B
RLMPU0015QSZZ	572 626 0615	9- 6	BA	FX		B
RLMPU0016QSZZ	578 626 0047	9- 6	BA	FX		B
RLMPU0018QSZZ	578 626 0054	9- 6	BA	FX	N	B
RMOTD0035QSZZ	578 630 0101	6- 5	AN	EG	N	B
RMOTP0044QSPZ	578 630 0132	10- 7	BH	GX	N	B
RMOTS0040QSZZ	578 630 0133	14- 59	AR	EQ	N	B
RMOTS0041QSZZ	578 630 0134	4- 30	BA	FX	N	B
RMOTS0042QSZZ	578 630 0135	12- 102	AT	EZ	N	B
RPLU-0007QSZ1	578 647 0031	13- 28	AM	EG	N	B
RPLU-0008QSZ1	578 647 0032	10- 16	AM	EG	N	B
RPLU-0009QSZ1	578 647 0033	10- 10	AM	EG	N	B
RPLU-0012QSZ1	578 647 0029	19- 16	AM	EG	N	B
RPLU-0013QSZ1	578 647 0030	19- 33	AM	EG	N	B
RTHM-0001QSZZ	572 644 0031	9- 2	AM	EG		B
【S】						
SPAKA0134QSZZ	572 902 1474	17- 7	AE	DJ		D
SPAKA0463QSZZ	578 902 0347	17- 3	AV	FG	N	D
SPAKA0464QSZZ	578 902 0348	17- 2	AV	FG	N	D
SPAKA0465QSZZ	578 902 0349	17- 18	BE	GN	N	D
SPAKA0466QSZZ	578 902 0350	17- 13	AG	DX	N	D
SSAKA2343QCZZ	595 906 0012	17- 19	AA	DD		D
SSAKA3001CCZZ	502 906 0002	17- 14	AA	DD		D

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SSAKZ0003QSZZ	578 906 0016	17- 5	AF	DS		D
【T】						
TCADS1409FCZZ	572 913 0842	17- 27	AF	DS		D
TCADZ0010QSZZ	572 913 0821	17- 8	AC	DJ		D
TCADZ0021QSZZ	572 913 0898	17- 26	AD	DJ		D
TCADZ0049QSZZ	572 913 0912	17- 27	AH	DX		D
TCADZ0098QSZZ	578 913 0110	17- 26	AF	DS		D
TCADZ0253QSZZ	578 913 0293	17- 26	AF	DS	N	D
TCADZ2001QCZA	579 913 0089	17- 27	AE	DS		D
TCAUH0007QSZZ	572 914 0676	6- 53	AD	DJ		D
TCAUH0018QSZZ	578 914 0029	6- 53	AE	DJ	N	D
TCAUH1047FCZZ	578 914 0027	1- 59	AD	DJ		D
TINSE0908QSZZ	578 916 0795	17- 28	AR	EQ	N	D
TINSE0909QSZZ	578 916 0797	17- 28	AW	FG	N	D
TINSE0911QSZZ	578 916 0798	17- 28	AW	FG	N	D
TINSE0933QSZZ	578 916 0796	17- 29	AH	DX	N	D
TINSF0912QSZZ	578 916 0799	17- 28	AZ	FQ	N	D
TINSF0934QSZZ	578 916 0800	17- 29	AN	EQ	N	D
TINSF0913QSZZ	578 916 0801	17- 28	AZ	FQ	N	D
TINSF0935QSZZ	578 916 0802	17- 29	AN	EQ	N	D
TINSJ0907QSZZ	578 916 0805	17- 28	AW	FG	N	D
TINSJ0932QSZZ	578 916 0806	17- 29	AK	EB	N	D
TINSS0931QSZZ	578 916 0803	17- 28	AZ	FQ	N	D
TINSS0952QSZZ	578 916 0804	17- 29	AN	EQ	N	D
TLABG0401QSZZ	578 917 0596	1- 52	AR	EQ		D
TLABG0408QSZZ	572 917 3678	1- 49	AD	DJ		D
TLABH0024ESZZ	578 917 0528	11- 76	AK	DX		D
TLABH0061QSZZ	572 917 3359	9- 39	AE	DJ		D
TLABH0062QSZZ	572 917 3360	9- 39	AE	DJ		D
TLABH0064QSZ1	572 917 3369	16- 8	AC	DJ		D
TLABH0065QSZZ	578 917 0624	17- 22	AG	DX	N	D
TLABH0066QSZZ	578 917 0620	13- 44	AE	DJ	N	D
TLABH0068QSZ1	578 917 0468	17- 21	AF	DS		D
TLABH0069QSZZ	578 917 0630	17- 22	AG	DX	N	D
TLABH0078QSZ1	572 917 3418	17- 21	AE	DS		D
TLABH0103QSZZ	578 917 0625	1- 30	AB	DJ	N	D
TLABH0104QSZ1	578 917 0626	1- 31	AB	DJ	N	D
TLABH0116QSZ1	578 917 0621	17- 22	AN	EG	N	D
TLABH0117QSZ1	578 917 0627	17- 22	AP	EQ	N	D
TLABH0364QSZZ	578 917 0573	9- 57	AA	DJ	N	D
TLABH0457QSZZ	578 917 0622	1- 44	AG	DX	N	D
TLABH0458QSZZ	578 917 0631	1- 44	AF	DS	N	D
TLABH0460QSZZ	578 917 0632	17- 20	AD	DJ	N	D
TLABH0482QSZZ	578 917 0623	1- 51	AE	DS	N	D
TLABH4771FCZZ	578 917 0599	1- 58	AF	DS		D
TLABM0520QSZZ	578 917 0633	1- 54	AE	DJ	N	D
TLABS3760FCZZ	572 917 2881	17- 30	AC	DJ		D
TLABS4070FCZZ	572 917 3093	1- 56	AC	DJ		D
TLABS4770FCZZ	578 917 0600	1- 57	AD	DJ		D
TLABZ0058QSZZ	572 917 3341	1- 49	AD	DJ		D
TLABZ0105RSZZ	572 917 3589	1- 58	AD	DJ		D
TLABZ4047FCZZ	572 917 3041	1- 52	AC	DJ		D
TLABZ4312FCZZ	572 917 3321	1- 52	AE	DS		D
TLABZ4335FCZZ	572 917 3385	4- 96	AB	DJ		D
TTAG-0004QSZZ	572 921 0003	16- 19	AC	DJ		D
"	572 921 0003	17- 11	AC	DJ		D
【U】						
UBAGF0018YSZ1	572 931 0023	17- 6	AF	DS		D
UCLEZ0009QSZ1	578 704 0034	7- 3	AQ	EQ		C
【V】						
VHPGP1A71A1-1	572 574 0114	19- 15	AG	DX		B
VHPGP1S73P+-1	578 568 0009	11- 61	AF	DS		B
VRH-ST2HB157K	572 581 1817	9- 49	AD	DJ		C
【X】						
XBBSD30P04000	541 970 5027	10- 17	AA	DD		C
XBBSD30P06000	541 970 5028	19- 34	AA	DD		C
"	541 970 5028	9- 22	AA	DD		C
XBBSD30P08000	571 970 0241	4- 23	AA	DD		C
XBBSD30P10000	585 970 0050	13- 34	AA	DD		C
XBBSD40P08000	572 970 0627	10- 6	AA	DD		C
XBBSD0051P0000	577 970 0051	8- 10	AA	DD		D
XBBSE30P06000	595 970 0127	19- 46	AA	DD		C
XPBPZ30P03000	571 970 0433	8- 29	AB	DD		C
XPBSC30P06ES0	572 970 1939	6- 9	AA	DD		C
XPBSC30P06K00	541 970 0046	15- 22	AA	DD		C
XPBPSD20P09000	571 970 0122	12- 71	AA	DD		C
XPBPSD30P05K00	541 970 5005	4- 29	AA	DD		C
XPBPSD30P06K00	541 970 0016	8- 35	AA	DD		C
"	541 970 0016	9- 1	AA	DD		C
XPBPSD30P08K00	541 970 1097	12- 10	AA	DD		C
"	541 970 1097	9- 9	AA	DD		C



## 注 意

- ・ 電池を正しく交換しないと爆発を起こす危険がある。
- ・ 機器製造者が指定したものと同一型名のもの、又は、その同等の電池とのみ交換すること。
- ・ 使用済みの電池は、製造者の指示に従って処分すること。

### CAUTION FOR BATTERY REPLACEMENT

- (Danish) ADVARSEL !  
Lithiumbatteri - Eksplosionsfare ved fejlagtig håndtering.  
Udskiftning må kun ske med batteri  
af samme fabrikat og type.  
Levér det brugte batteri tilbage til leverandoren.
- (English) Caution !  
Danger of explosion if battery is incorrectly replaced.  
Replace only with the same or equivalent type  
recommended by the manufacturer.  
Dispose of used batteries according to manufacturer's instructions.
- (Finnish) VAROITUS  
Paristo voi räjähtää, jos se on virheellisesti asennettu.  
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan  
tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden  
mukaisesti.
- (French) ATTENTION  
Il y a danger d'explosion s'il y a remplacement incorrect  
de la batterie. Remplacer uniquement avec une batterie du  
même type ou d'un type équivalent recommandé par  
le constructeur.  
Mettre au rebut les batteries usagées conformément aux  
instructions du fabricant.
- (Swedish) VARNING  
Explosionsfara vid felaktigt batteribyte.  
Använd samma batterityp eller en ekvivalent  
typ som rekommenderas av apparattillverkaren.  
Kassera använt batteri enligt fabrikantens  
Instruktion.
- (German) Achtung  
Explosionsgefahr bei Verwendung inkorrektter Batterien.  
Als Ersatzbatterien dürfen nur Batterien vom gleichen Typ oder  
vom Hersteller empfohlene Batterien verwendet werden.  
Entsorgung der gebrauchten Batterien nur nach den vom  
Hersteller angegebenen Anweisungen.

### CAUTION FOR BATTERY DISPOSAL

- (For USA,CANADA)  
Contains lithium-ion battery. Must be disposed of properly.  
Remove the battery from the product and contact  
federal or state environmental  
agencies for information on recycling and disposal options.

# SHARP

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